

COMPLIMENTARY ISSUE!

THE SHOPPER'S GUIDE TO NEW PRODUCTS



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# FirstGlimpse®



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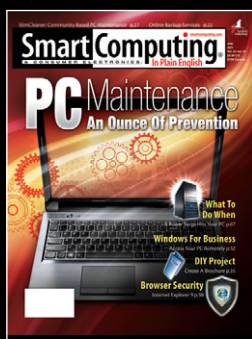
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Our plain-English approach has served audiences well for 30 years, ensuring they receive accurate and unbiased technology information to meet their needs.





# FirstGlimpse®

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# The Connected Home

## Discover New Possibilities With Today's Technology

TODAY A WIDE VARIETY of digital devices and technologies work together to make all kinds of information available whenever and wherever you need it. Stream movies to your home theater; download photos from a relative overseas to a photo frame in your living room; or upload music from your MP3 player to your car. Whatever you want to do, there's a product out there to help you do it. Use this digital home blueprint to identify the types of things you want to do, and then go to the appropriate pages to learn about related products and technologies.

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For many of us, a cell phone is a daily companion, and it's a device that's constantly evolving. To learn about the latest in phone tech, features, and accessories, take a look at our Portable Devices section.



**59 OnStar FMV**  
Safely Connecting You In  
Ways You Never Thought  
Possible



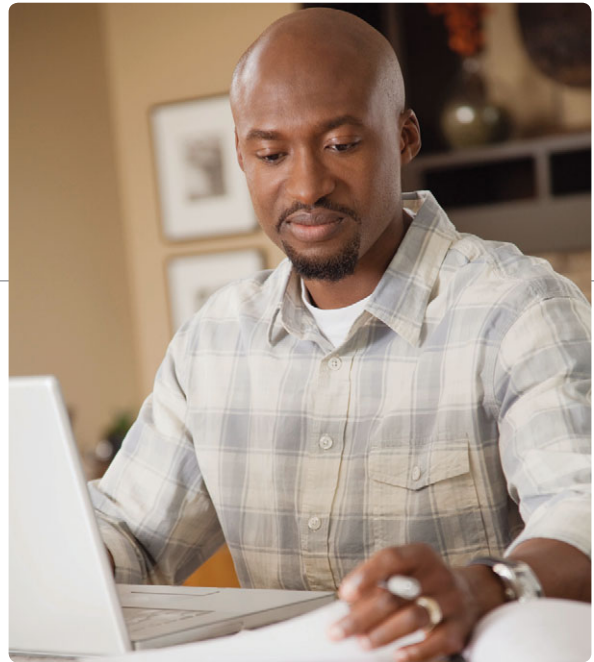


# ce news

COMPILED BY ANDREW LEIBMAN

## SSDs Are A Hit

Gartner reports that SSDs (solid-state drives) will be getting significantly cheaper throughout 2012, making them a top storage option for consumers. SSDs will achieve the magic \$1-per-gigabyte price by the latter half of 2012. SSDs have been popular among business customers since 2010, but to date, consumers are only now getting access to SSDs in thin and light notebooks. Gartner claims that the average selling price of NAND flash memory, the kind used in SSDs, will drop by 30% over the course of the rest of the year and another 36% from 2011 to 2012.



## Memory Encryption Breakthrough

There's a new memory standard on the block that can retain data even without power. NVMM (Non-Volatile Main Memory) could enable PCs, smartphones, and other mobile devices to turn on instantly, but the memory's Achilles heel is the ease with which unauthorized users could tap into sensitive data. Thanks to the work of researchers at N.C. State University, however, NVMM is more secure than ever. They developed i-NVMM, which is a hardware-based encryption technology that only takes a 3% performance hit during the encryption process, auto-encrypts sensitive data when it is not in use, and encrypts all the other data when the PC shuts down.



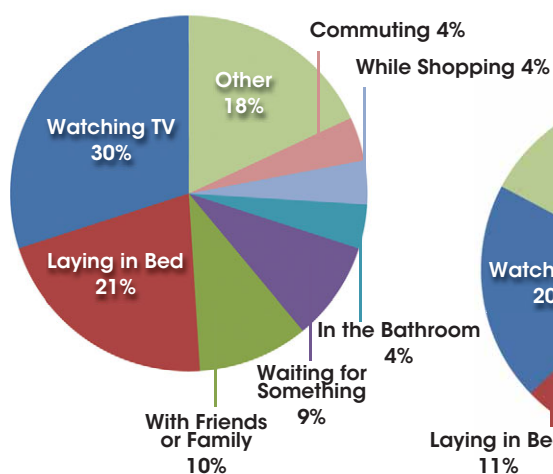
## m a r k e t p l a c e

## Tablet vs. Smartphone Usage

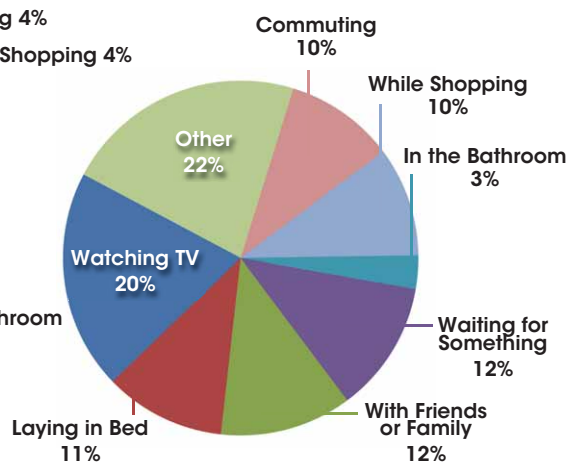
A survey of almost 12,000 tablet and smartphone owners reveals that they generally spend their time with each device differently. Tablet owners spend the largest chunk of their time with the device (30%) while watching TV. Smartphone owners also spend most of their time using the device while watching TV (20%), but only spend 11% of their time fiddling with their phones while lying in bed. Tablet users, on the other hand, spend 21% of their time using the mobile device in bed.

Source: The Nielsen Company

### Tablet Usage



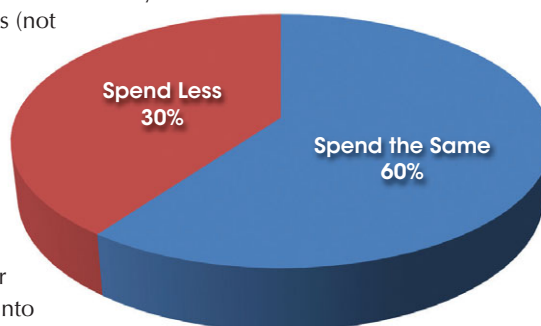
### Smartphone Usage



## Mobile Gaming Gets Fired Up

The NPD Group's Online Gaming 2011 report reveals that digital game downloads for mobile devices, such as smartphones and tablets, now account for nearly half of all full video game downloads (not counting micro-transactions and expansions). Most gamers appear to spend more on gaming to accommodate their mobile devices, and 60% of mobile game purchasers said they still spend the same or more on console and portable games. Only 40% admitted that their mobile game purchases have eaten into their overall game budgets.

Source: The NPD Group



## tidbits

IHS iSuppli reports that for the first time, over a billion consumer and business electronics devices with embedded WLAN (Wireless Local Area Network) capabilities will ship in 2011. By 2015, shipments will surpass 2 billion units, largely due to increasing demand for Web-enabled products.

Source: HIS iSuppli



The Android and Apple iOS smartphone platforms are accounting for an increase in video game revenue at the expense of portable and console game devices. In 2009, Apple snagged 5% of gaming revenues for the year. In 2010, the Apple and Android mobile OSes shared 8% of total revenues.

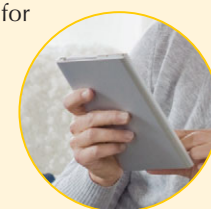
Source: Flurry Analytics

A new report claims that the Internet radio and connected home audio devices industry will be worth a billion dollars in 2011. By 2015, the connected home audio device install base will exceed 40 million units.

Source: Strategy Analytics

If you thought eReaders were a passing fad, think again. Amazon reports that, for the first time ever, sales of ebooks outpaced sales of paperbacks and hardcovers combined. In April, Amazon sold 105 ebooks for every 100 physical books.

Source: IHS iSuppli





# Brick & Mortar Or Online?

## A Physical Store Presence Means Better Support, More Services

Online stores are convenient, but by themselves, they don't always offer the most complete shopping experience. Retailers with a physical presence in addition to an online storefront are able to provide some critical advantages, among the most important of which are some key support and service options that an online-only retailer can't match.

### Installation & Repair

Some sophisticated consumer electronics can benefit from skilled setup and installation, but depending on your skill level—or on how full your schedule happens to be—it may be in your best interest to have even less complex equipment professionally installed, set up, or repaired. Such services are best provided by a store with a physical presence, such as your local Best Buy and the Geek Squad services it offers.



### Returns & Replacements

Sometimes you need to return or exchange a purchase. Maybe you bought the wrong size. Perhaps you grabbed the laptop without a built-in Web cam. Maybe you just can't get your recently purchased device to work. It's good to be able to walk into your local store, explain the problem face-to-face to an actual human being, and walk out with a replacement in your hand: no packing, no shipping, no waiting.

### Accessories

How about those accessories you forgot to buy or didn't even realize you'd need? A protective case? A car charger? If you need accessories to protect or enhance that new device, you don't want to wait. You want to find the correct accessories, get them immediately, and get back to using your new equipment. You can only do that by visiting your local CE retailer.

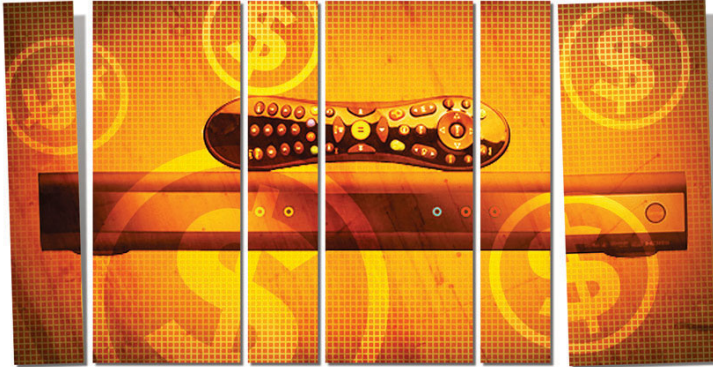
### Drop-Off & Pickup

Best Buy offers free recycling drop-offs as well as at-home, fee-based pickup; online-only retailers can't provide these services. So if you're in the market for a new widget, it'll be up to you to find an efficient, eco-conscious, and legal way to dispose of your old one.

## HOW TO BUY

# A DVR

## Take Control Of Your TV



A DVR (digital video recorder) can help you get the most value out of your subscription to cable or satellite TV service. By automatically recording shows so you can watch them at your convenience, called time-shifting, a DVR can help you reclaim control of your rest and relaxation time and entertainment dollar.

**HD.** If your TV and cable/satellite service both support high-definition video, make sure that your new DVR can keep up, too. Buy a model that supports programming in 1080p, 1080i, and 720p HD video formats. Just imagine . . . “rewind” live TV . . . using a DVR’s ability to “rewind” live TV to view your own high-def instant replays of sporting events.

**Flexibility.** Special features and accessories can expand your new DVR’s potential. For instance, some models let you watch recorded shows on any TV in your house. You can buy remotes with more features as well as adapters to connect certain DVRs to a wireless home network. And when you’re away from home, you may be able to remotely program your recorder to catch a movie through an app on your smartphone. . . . some models let you watch recorded shows on any TV in your house.

**Online services.** A DVR is all about watching what you want, when you want. That said, it’s even better when your DVR lets you watch content it doesn’t have to record first. Some models can receive streaming video from services such as Netflix and YouTube, for instance. Likewise, certain DVRs let you enjoy Internet radio from sources such as Pandora, or even general Web browsing. Some models can receive streaming video from services such as Netflix and YouTube . . .

**Capacity.** DVRs are sold by the number of hours of programming they can hold, which represents the capacity of their hard drives. For instance, a current high-end model can store

DVRs are sold by the number of hours of programming they can hold, which represents the capacity of their hard drives.

more than 100 hours of HD shows. If your family includes three or more viewers, consider buying a DVR with high capacity and/or support for additional storage via an external hard drive.

BY MARTY SEMS



# Network Options For Your Home Theater

## Connection Possibilities



Most of today's home theaters include network-enabled components. Whether it's used to stream movies over the Web or as a tool for connecting your home theater to the digital music files on your computer, your network can be your home theater's best friend. We'll examine the question of which type of network might best serve your needs.

### Wired Ethernet Is Fastest

For the best all-around streaming experience, a hardwired Ethernet connection is unbeatable. Real-world download speeds of up to 60 to 80Mbps or better result in smooth, fast video and audio streaming with no dropped frames or stuttering. Your Internet-enabled television will connect to the Web quickly, and Web TV apps will download in no time. Of course, to take advantage of that speed, your TV, receiver, or DVD or Blu-ray Disc player would have to provide an Ethernet port.

### The Convenience Of Wi-Fi

While wired Ethernet is fast, it's not always convenient. Your components may lack Ethernet ports or you may not have wired Ethernet available where you have your home theater set up, which means that the only way to connect to Ethernet is to string network cables all over the place. Enter Wi-Fi: Near your network's wireless router or access point, the newest iterations of Wi-Fi can deliver real-world download speeds of around 40 to 100Mbps, plenty fast enough to provide a smooth media-streaming experience.

### Powerline Networking

Powerline networking can offer the best of both worlds: Adapters plugged into wall outlets let you use your home's electrical wiring as your network, delivering speeds as fast as 85Mbps or better, and letting you take one of two approaches to networking your home theater: First, you can connect an adapter directly to your components, as if the adapter were an Ethernet jack. Or, you can connect a wireless router or access point to the adapter and then connect to it using your theater's built-in Wi-Fi.

# LED-LCD HDTVs: Full Array vs. Edge Lit

## Backlights Illuminated



One of the hottest trends in HDTV technology is LED-LCDs. Sometimes simply called LED TVs, these are LCDs that get their illumination—called backlighting—from white, solid-state light-emitting diodes instead of CCFLs (cold cathode fluorescent lamps).

The LED backlights can be lined up around the four edges of the TV, like the CCFLs in a traditional LCD, with a white rear panel reflecting their light through the screen. Other layers of the LCD screen add color and control the picture's brightness.

Alternatively, manufacturers can replace the reflective rear panel with a full array, or grid, of LEDs. By turning down or turning off an LED behind a group of screen pixels—a feature called local dimming—a full-array LED-LCD can make black and dark colors look deeper and richer, especially in a dark room.

### Full-Array Backlighting

Your teenager's recent fascination with classic movies has reawakened your old interest in cinematography. What better way to bond with her than a home-theater matinee with the curtains drawn?

- Local dimming dramatically increases contrast ratio, deepening dark colors.
- A full-array LED backlight can also help to smooth on-screen motion.
- LED TVs that use full-array backlighting can cost more than edge-lit LED-LCDs.
- These can be somewhat thicker than edge-lit models.

### Edge-Lit Backlighting

Say you're giving your living room a makeover. You'd like to minimize its use of energy through alternative light bulbs and power-saving home-theater equipment. You'd also like to maximize its available space by wall-mounting an extremely thin HDTV.

- Edge-lit LED-LCDs are the thinnest type of HDTV commonly available.
- These have lower energy consumption than a traditional LCD with CCFLs.
- LEDs may yield more lifelike color than CCFLs.
- Edge-lit LEDs can't match the rich dark colors of full-array LED backlighting.

BY MARTY SEMS



# Yes, You Need To Calibrate

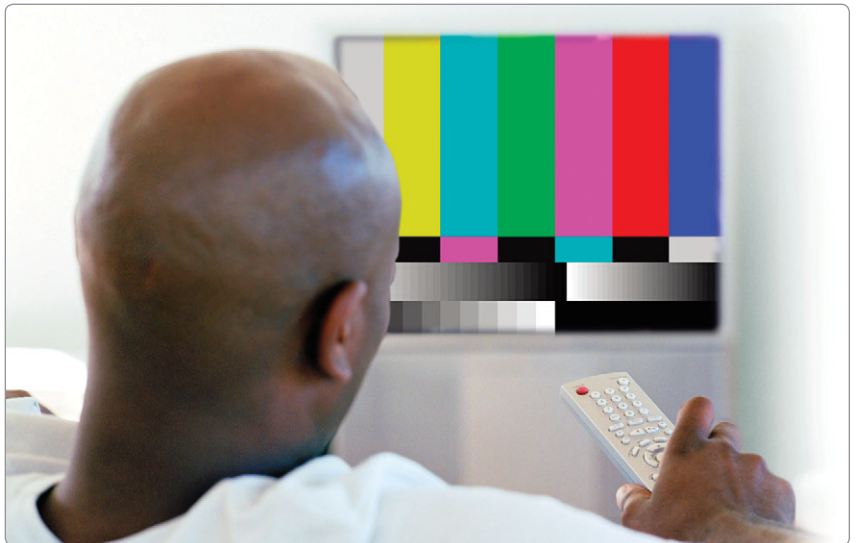
## Get Optimal HDTV Video Results

### Why A Professional Calibration?

- Calibration specialists are ISF (Imaging Science Foundation)-certified, which means they are trained to use highly specialized and expensive equipment to calibrate HDTVs correctly.
- A calibration DVD might be a tempting alternative, but it won't let you adjust all of your HDTV's settings. An ISF-certified professional can access advanced service menus to calibrate your TV correctly. These settings aren't meant to be experimented with, so if you poke around and gain access to your TV's service menu, it's best to leave it alone. Many people have rendered their TVs useless because they didn't heed this warning.

### Your Video May Not Be All That It Seems

- Most TVs are shipped with a set standard video mode meant for an electronics store display—this means that the TV's settings are adjusted to show the best picture in a bright, fluorescent-lit environment. Because it's unlikely your lighting at home matches the store's surroundings, you should have your TV professionally calibrated by a specialist to accommodate your home's unique lighting environment.
- An HDTV's viewing angle and your home-theater setup also affect how your HDTV should be calibrated. An ISF-certified professional takes these factors into account when making adjustments.
- Although you can expect to budget 10 to 15% of the purchase price of your television for a professional calibration, consider it an entertainment investment that will pay dividends for years to come.



### What You Can Expect

- A calibration session includes two inputs on the set, so no matter which you use, you will get the best image clarity and sharpness your HDTV can provide.
- A professional will use color analyzer equipment to objectively tune color saturation and temperature as precisely as possible, letting you see video exactly the same way it looked when it was created.
- Your HDTV's contrast will be set up to provide greater video detail as well as the darkest blacks and brightest whites.

## ESSENTIAL THINGS TO KNOW

# Home-Theater Connections

## **Q** How do I decide which ports I'll need on my HDTV?

**A** You should make sure that every device in your home theater, including an audio system, DVD player, Blu-ray Disc player, or game console, has the right connection available on the HDTV. You should also make sure there are enough ports to go around.

## **Q** What are the different options for video cabling in a home-theater system?

**A** You can connect video devices via HDMI, Component video (three RCA cables), DVI, S-Video (a special yellow-tipped cable), Composite video (a single RCA cable), or coaxial cable.

## **Q** What are the different options for audio cabling in a home-theater system?

**A** You can use HDMI, Optical, coaxial, or stereo analog (two RCA cables).

## **Q** What is HDMI?

**A** This cable carries HD video and audio between devices over a single cable. It's the only cable that won't degrade the high-quality audio and video that's delivered to your TV.

## **Q** What is the highest quality audio/video connection I can get for my home theater?

**A** HDMI is generally considered the highest quality for both. Further, as it carries both audio and video on a single cable, it's easy to keep your cabling to a minimum.

Your next best option is DVI, followed by Component and then Composite.

## **Q** Can I connect my computer to my home-theater system?

**A** Yes; computers generally include multiple channels of audio output, DVI outputs for video, and, depending on the motherboard or sound card, HDMI for both audio and video.

## **Q** Can I use my HDTV to stream online content, such as audio and video?

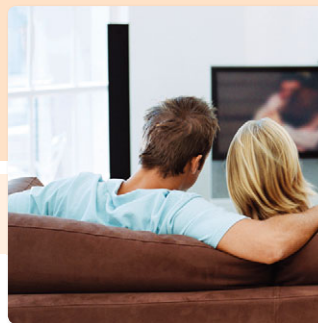
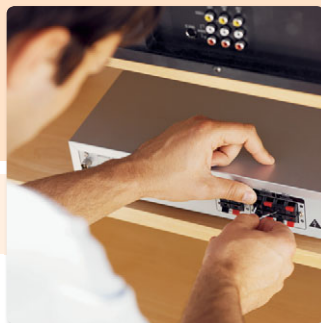
**A** Yes, if you have the right components connected. Media extenders, set-top boxes, and even game consoles often have Internet capabilities built in; therefore, you can connect these devices to your HDTV and access Internet content via a Wi-Fi or Ethernet connection.

## **Q** Can I use my HDTV to access the content on my PC?

**A** Yes. If you have a streaming device, such as a media extender, you can use your home network to move the files that are stored on your computer, such as videos, music, and photos, to your home-theater system.

## **Q** What else can I connect to my home-theater system?

**A** Essentially, you can connect any audio or video device that has the appropriate ports. For example, you can connect digital cameras and camcorders to your home-theater system to review your photos and video on your HDTV screen.





# HDTVs

## Screen Technology Differences



### LCD (liquid-crystal display)

LCDs can use one of two backlight technologies. CCFLs (cold cathode fluorescent lamps) are the most common, but LEDs are the latest backlight technology to hit the LCD scene. (See the "LED" section for more info on LED TVs.)

#### Pros

- The thin profiles and light weight of LCDs make them easy to mount on a wall.
- Power demands are a bit lower than comparably sized plasma displays and considerably lower than CRT televisions.

#### Cons

- Fast-moving images may suffer from a slight trailer effect, but with improved

LCD technology, the effect is barely perceptible.

- When pixels stick on or off, they show up as either a pinpoint of bright light or black, which can be distracting on-screen.
- From certain viewing angles, LCDs will lose video contrast and color.
- LCDs with CCFL backlighting suffer from leaking light, and unlike LEDs, they can't dim certain areas on-screen. This may result in blacks and whites that appear to be more gray in color.

#### Best For

- Streaming PC content
- Bright, sunny rooms

### LED (light-emitting diode)

LED TVs are actually a type of LCD TV. These sets use one of two LED backlight technologies:

- Full-array lighting places LEDs behind the screen in a grid pattern, letting the TV dim certain LEDs for the best contrast ratios available.
- Edge-lit sets have LEDs placed around the frame of the TV, and light is directed toward the center of the screen. Edge-lit models cost less than full-array sets and are a lot thinner.

#### Pros

- By using LEDs, these sets use a lot less electricity than other HDTVs, and

they don't contain harmful mercury.

- Overall, LED TVs are one-third thinner than other LCD TVs and have longer life spans.
- Plasmas are well-known for their deep blacks, crisp whites, and fast response times, but LED TVs closely match in performance.

#### Cons

- These sets are costly because they feature a relatively new technology.
- Blooming, or a halo effect, may encircle bright images that are on dark backgrounds.

#### Best For

- Eco-conscious viewers
- Fast-paced gaming

### Plasma

#### Pros

- A plasma TV's phosphors light up evenly across the screen to create images, which are consistently bright and clear with vibrant colors.
- The contrast ratio is high, so you'll see some of the darkest blacks and brightest whites.

- The design and technology of plasma TVs lend themselves to large screen sizes—typically 42 inches or greater.
- Rapid pixel response means no blurry motion.
- Wide viewing angles give you the same high-quality images on-screen no matter where in the room you happen to be sitting.

#### Cons

- Some plasmas are susceptible to image burn-in if not cared for properly.
- Low air pressure and high altitudes may cause plasmas to buzz.
- Some plasmas have highly reflective glass, which isn't ideal in sunny settings.

#### Best For

- Large groups who watch TV together
- Movies or sports with nonstop action

### RPTV (rear-projection TV)

#### Pros

- RPTVs are surprisingly lightweight for their sizes.
- You'll find exceptional picture quality on very big screens (typically 60 inches and larger).

- As screens get bigger, RPTVs tend to be more cost-effective than an LCD, LED, or plasma TV.

#### Cons

- With depths of 16 to 24 inches, these TVs are far too big and bulky to mount on a wall.









- RPTVs require lamp replacements every few years.

#### Best For

- Anyone who wants to bring a cinematic experience home
- Big, roomy home theaters

## Should You Get An LCD Or LED-LCD TV?

So, you've decided to get an LCD TV. The next step is deciding *which* LCD TV to invest in. LCDs use different kinds of lights to project an image onto the screen. A traditional LCD uses CCFLs or EEFLs whereas new LED-LCDs use LEDs. Here's a look at what sets apart a few of the latest LCD and LED-LCD TVs.

		Light projection	Size	Dimensions; Weight***	Native resolution	Viewing angle	Inputs & Outputs	Refresh rate**
	What It Means	How images are projected on-screen; type of backlight an LED-LCD uses	The diagonal measurement of the TV's screen	Height x width x depth; How much the TV weighs	A fixed TV resolution; images are best displayed in this	The angle at which the viewer can see the screen clearly	Inputs let you connect devices; Outputs transfer information to peripherals	Speed at which a screen is redrawn every second
	<b>Insignia NS-37L760A12</b> MSRP: \$429.99* SKU 1894273	CCFL	37 inches	22.9x37.8x3.5 inches; 25 pounds	1080p	178 degrees	3 HDMI, 3 DVI, 1 Component, 1 Composite, 1 PC; 2 audio outs	60Hz
	<b>Samsung LN46D630</b> MSRP: \$999.99* SKU 2122306	CCFL	46 inches	26.5x43.9x3.2 inches; 41.2 pounds	1080p	N/A	4 HDMI, 2 Component, 2 Composite, 1 PC, 2 USB; 1 audio out	120Hz
	<b>Toshiba 55G310U</b> MSRP: \$1,299.99* SKU 2363655	CCFL	55 inches	33.49x52.8x4.09 inches; 66.8 pounds	1080p	N/A	3 HDMI, 1 Component, 1 PC, 1 USB; N/A	120Hz
	<b>Westinghouse VR-6025z</b> MSRP: \$1,299.99 SKU 2047526	N/A	60 inches	35x62.5x9 inches; 85 pounds	1080p	176 degrees	3 HDMI, 2 Component, 1 Composite, 1 S-Video, 1 PC; N/A	120Hz
	<b>Toshiba 40SL412U</b> MSRP: \$899.99 SKU: 2047599	LED (N/A)	40 inches	23.5x37.83x1.38 inches; 31.31 pounds	1080p	N/A	3 HDMI, 1 Component, 1 Composite, 1 PC, 1 USB; N/A	60Hz
	<b>LG 55LW6500</b> MSRP: \$2,699* SKU 2355204	LED (N/A)	55 inches	30.9x51.12x1.25 inches; 48.5 pounds	1080p	N/A	4 HDMI, 2 Component, 1 PC, 2 USB; 1 digital audio out	240Hz
	<b>Sony KDL60NX720</b> MSRP: \$3,499.99* SKU 2371038	LED (N/A)	60 inches	31.75x50.5x1.12 inches; 50.9 pounds	1080p	178 degrees	4 HDMI, 1 Component, 2 Composite, 2 USB, 1 PC; 1 digital audio out, 1 audio out	120Hz
	<b>Sharp AQUOS LC-70LE732U</b> MSRP: \$3,299.99* SKU 2047632	LED (N/A)	70 inches	38x63.5x3.5 inches; 92.6 pounds	1080p	176 degrees	4 HDMI, 1 Component, 1 Composite, 1 PC, 2 USB; 2 audio outs	120 Hz

LED-LCD









\*Prices listed in this issue are for general reference and may vary from retailer pricing.  
\*\*\*Unless specified, this is without stand

\*\*Comparing refresh rates between plasma and LCD TVs is like comparing apples to oranges.  
For more in-depth information about refresh rates, please ask a sales associate.



## Which Plasma TV Is Best For You?

If you're planning to buy a plasma HDTV, it might be hard to decide on one just by looking at a wall of gorgeous sets. Refer to this chart for further help when shopping.

		Size	Dimensions; Weight***	Native resolution	Viewing angle	Inputs	Outputs	Refresh rate**
	What It Means	The diagonal measurement of the TV's screen	Height x width x depth; How much the TV weighs	A fixed TV resolution; images are best displayed in the native resolution	The maximum angle at which the viewer can see the screen clearly	Inputs let you connect your components to your TV	Outputs transfer information from your TV to peripherals, such as audio to speakers	Speed at which a screen is redrawn every second
	<b>Insignia NS-42P650A11</b> MSRP: \$499.99* SKU 9748831	42 inches	24.9x40.6x2.8 inches; 49.6 pounds	720p	N/A	2 HDMI, 2 Component, 1 Composite	2 audio	600Hz
	<b>Insignia NS-50P650A11</b> MSRP: \$697.99* SKU 9745916	50 inches	31.3x47.4x2.8 inches; 50.7 pounds	720p	N/A	2 HDMI, 2 Component, 1 Composite	2 audio	600Hz
	<b>Panasonic VIERA TC-P46X3</b> MSRP: \$699.95* SKU 2125242	46 inches	27.7x44.4x3.7 inches; 58.5 pounds	720p	N/A	2 HDMI, 1 Component, 1 Composite, 2 USB, 1 Ethernet	1 audio	600Hz
	<b>Samsung PN51D450A2</b> MSRP: \$799.99* SKU 2135081	51 inches	27.9x46.9x2.3 inches; 49.6 pounds	720p	N/A	2 HDMI, 2 Component, 1 Composite, 1 USB	1 audio	600Hz
	<b>Samsung PN51D490A1</b> MSRP: \$999.99* SKU 2135072	51 inches	27.9x46.9x2.3 inches; 49.6 pounds	720p	N/A	2 HDMI, 2 Component, 1 Composite, 1 USB	1 audio	600Hz
	<b>Panasonic VIERA TC-P55ST30</b> MSRP: \$1,799.95* SKU 2201056	55.1 inches	32x52.2x2.8 inches; 72.8 pounds	1080p	N/A	3 HDMI, 1 Component, 1 Composite, 2 USB, 1 Ethernet	1 audio	600Hz
	<b>LG 50PZ950</b> MSRP: \$1,899.99* SKU 2355222	49.9 inches	28.3x46.7x2 inches; 62.2 pounds	1080p	N/A	4 HDMI, 2 Component, 2 Composite, 2 USB, 1 PC, 1 Ethernet	1 audio	600Hz
	<b>Samsung PN59D6500D</b> MSRP: \$2,199.99* SKU 2254075	59 inches	32.6x54.3x1.5 inches; 67.5 pounds	1080p	N/A	4 HDMI, 2 Component, 1 Composite, 1 USB, 1 PC, 1 Ethernet	1 audio	600Hz

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\*\*Comparing refresh rates between plasma and LCD TVs is like comparing apples to oranges.  
For more in-depth information about refresh rates, please ask a sales associate.

## NOTEWORTHY

# Accessories & Services

As you head toward the HDTV section of your local consumer electronics store, you'll invariably pass shelves of bland-looking HDTV accessories. There are a handful of accessories that are vital to getting the most from your HDTV. The following is a rundown of the accessories we recommend to complete your home-theater setup.



## WALL MOUNTS & BRACKETS

- View your HDTV from the best possible angle
- Adjust your TV's position by tilting it up or down as needed
- Maximize space in your viewing room by hanging up your TV



## CLEANING KIT

- Protect your HDTV's screen by using specially formulated sprays and cloths while cleaning it
- Eliminate the danger of scratching delicate screens
- No-drip formulas prevent damage to other home-theater equipment



## CORD-CONCEALMENT KIT

- Hide multiple cords while keeping them organized and minimize cord clutter
- Keep the focus on your new HDTV, not the cords connected to it



## TV STANDS

- Offer flexibility if you're unable to mount your HDTV on the wall
- Available in a variety of finishes to match any décor
- Provide a place for additional home-theater equipment



## HDMI CABLES

- Carry uncompressed digital audio and video signals to and from your HDTV and its components
- Eliminate interference from other components with shielding (found in higher-end cables)



## UNIVERSAL REMOTE CONTROL

- Simplify your home-theater setup with one remote that can control all of your components
- Program different functions so that you will be able to watch a movie by pressing just one button, for example
- Easily view options in the dark with a backlit LCD



## SURROUND-SOUND SYSTEM

- Maximize your HDTV experience with theater-like audio
- Feel like you're in the movie scene instead of just watching it
- Even out softer and louder programming with an equalizer



## SURGE PROTECTORS & POWER CONDITIONERS

- Protect your home theater from potential damage by using a surge protector that will absorb electrical fluctuations
- Filter out "dirty power" (also known as electrical "noise" or radio interference) that can degrade your home theater's audio and video with a power conditioner
- Have peace of mind knowing that your home theater will give you its peak performance for the longest amount of time



## HOME-THEATER SERVICES

A home theater is a pretty big investment, so it's wise to consider letting a professional handle your installation and setup. Let your local CE retailer tackle the following tasks, and you'll be able to enjoy the full glory of HD in no time.

- Home Theater In-Home Consultation
- TV Recycling
- TV Calibration
- TV Mounting & Cord Concealment
- Remote Control Programming
- Speaker Setup





# HDTV Glossary

Balderdash! OK, HDTV jargon isn't quite *that* bad, but there are a few terms that every shopper needs to know. Here is your cheat sheet.

**aspect ratio**—Put simply, it's the shape of the TV's screen. An HDTV has a wider picture than a traditional TV of the same vertical screen height. An HDTV has a 16:9 aspect ratio, meaning that if its screen were 16 inches wide, it would be 9 inches tall. A regular 4:3 TV screen would be 12 inches wide at the same 9-inch height.

**HDMI (High-Definition Multimedia Interface)**—A type of cable connection that carries both high-resolution video and uncompressed multichannel audio between HDTVs, home-theater receivers, and the other components required for your home-theater setup. HDMI cables maintain top picture and sound quality.

**HD tuner**—A built-in tuner for receiving local high-def broadcast TV channels. You won't need one if you have cable or satellite service. Most HDTVs include one, but separate HD tuners and antennas are available if your TV doesn't have one.

**interlaced**—When an HDTV displays an interlaced image, as in 1080i or 480i resolutions, it really shows you every other horizontal line of a frame of video (called a field) at a time. Sixty times a second, the TV displays the other field of the frame, or the lines not shown in the previous field. Interlaced video can appear to flicker or might cause moving objects on-screen to have blurred edges.

**LCD (liquid-crystal display)**—Like a notebook's screen, an LCD HDTV uses a fluid crystal substance to form pixels of color in front of a back-light. LCDs may not be able to match plasma TVs' deep black and gray areas, but they're lighter, sometimes less fragile, and considered easier to set up. These work better in brighter rooms or if you will be playing unchanging images on the screen for an extended period of time.

**plasma**—Plasma TVs use a tiny tube of gas for each pixel, and electricity makes each pixel glow. Plasmas create deeper blacks and sometimes brighter colors than LCDs and have better contrast. These also offer slightly better viewing angles. However, older or less expensive models can also suffer from permanent screen

damage if an unchanging image, such as a TV channel's stock ticker or parts of certain video games, is displayed too long.

**progressive scan**—A TV showing a progressively scanned image, as in 1080p or 720p resolutions, displays a full frame of video (both odd-lined and even-lined fields) all at once. Progressive scan video looks sharper than interlaced does and doesn't flicker.

**projection**—Some large-screen HDTVs offer lower-priced alternatives to LCDs or plasmas by using projection technologies. These technologies vary, but all projection TVs throw light on a screen from the front or rear. This means they are bulkier than plasmas or LCDs, but some sets have stellar picture quality.

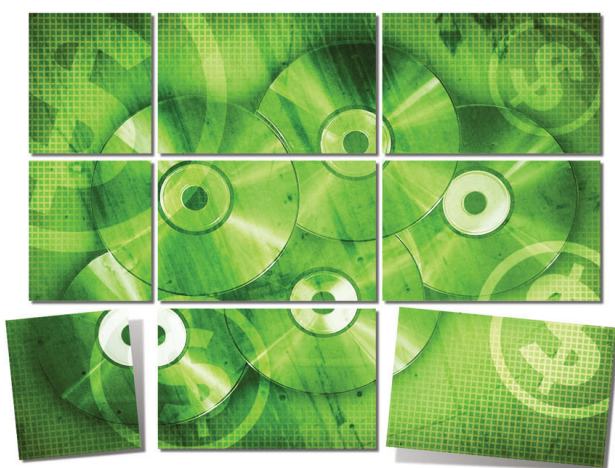
**viewing angle**—No matter where you sit in front of an HDTV with a wide viewing angle, such as 170 degrees, its picture should look reasonably good. Test this before you buy.

**widescreen**—A TV or monitor that's wider horizontally in relation to its vertical height. HDTVs typically have a 16:9 aspect ratio rather than an older 4:3 display.

## HOW TO BUY

# Photo- & Video-Editing Software

## Pick The Right Program



Whether you're a beginning photographer or a professional filmmaker, there are software programs that can help you make the most of your photos and videos. We'll show you what to look for when shopping for photo- and video-editing software.

**Basic vs. professional.** The first thing to decide when choosing photo- and/or video-editing software is whether you need tools for basic or professional editing. Anyone who wants to make simple adjustments or edits to their media generally can get by with a simple editing program, whereas

... software that's dedicated to one type of media or software suites ...

someone who wants to make complex changes or work on a large-scale project should invest in professional-grade software. Also, you'll need to choose between software that's dedicated to one type of media or software suites that can edit both photos and video.

**Photo editing.** Simple photo-editing programs can correct color, reduce red-eye, and make other basic image adjustments, such as resizing. Some more advanced photo-editing software titles have in-depth tools that can be used to fine-tune every element of a photo or perform advanced tasks such as object removal. You can also find software that provides project templates for

... find software that provides project templates for your photos to create items such as greeting cards and party invitations.

your photos to create items such as greeting cards and party invitations. Some software is geared toward making professional materials, such as brochures, for small businesses.

**Video editing.** Video-editing software lets you tweak the video you record and can prepare it for viewing on disc, the Web, or via email. Basic programs offer easy-to-use menus that let you cut and rearrange video, add text titles, and place transitions between clips. More advanced programs have detailed settings and menus that

... advanced programs have detailed settings and menus ...

everyday users may find challenging to use. File imports from compatible design programs, multiple audio tracks, and video filters and plug-ins are some features likely to be found in professional programs.



# Back-To-School Digital Imaging

## Photo & Video Options For Students



Pep rallies. One acts. Spirit week. No matter their age, these are the events and activities a student doesn't want to forget. So, what options does a student have to capture and enjoy these timeless moments during a busy school year? Keep reading to find out.

### Digital Photo Frames

After they've moved the last item into their dorm room, the space is so tight that they can't hang up their many picture frames. Instead, they can load some of their digital photo albums via memory card or USB drive onto a digital photo frame and watch them rotate throughout the day, as they study on their bunk bed.

### Easily Record HD Video

Your middle school student's project is to maintain a relationship with an international pen pal for the next two years. His teacher has encouraged them to keep in touch using Internet media, so why not let him use a shoot-and-share camcorder to create video letters? Most of these palm-sized, portable devices record in HD, and some even feature an LCD touchscreen.

### Upload Photos Wirelessly

There are too many good times during high school not to photograph. Fortunately, a Wi-Fi SDHC card makes it easy to wirelessly transfer recently snapped pictures to online sharing sites, smartphones, or tablets. So, when it's time to take photos of friends during the first day of school, your student won't have to wait until she gets home to post them to an online photo account and share them with friends and family.

### Protect Photos & Videos

Not only will buying a protection plan with your camera or camcorder safeguard your investment from wear and tear caused by regular use, but it also provides insurance if your device is accidentally damaged. For instance, if your D-SLR needs more than four repairs after it falls off the gym bleachers, a digital imaging protection plan from your local CE retailer may get you a comparable replacement.

# Rugged Cameras For Your Summer Adventures

## Olympus TG-610 & TG-810

Summertime ushers in exciting family vacations and other adventures, and a big part of the fun is shooting pictures and video to look back and relive the good memories. Whether your trips are outdoor adventures such as hiking, scuba diving, skiing, or rock climbing, or your family has young rambunctious kids, you need a tough camera that can withstand a beating and comes packed with great features. The Olympus TG-610 and TG-810 (\$299.99 and \$399.99, respectively; [www.olympus.com](http://www.olympus.com)) are up for the challenge.



**Olympus TG-610**  
\$299.99  
[www.olympus.com](http://www.olympus.com)

### TG-610: Waterproof, Shockproof & Freezeproof

This camera can take all of life's spills, thrills, and chills. Built to outlast the elements, the Olympus TG-610 has plenty of features, including 14MP, 5X wide-angle optical zoom, and a 3-inch LCD. Drops, the cold, and water are no problem for the TG-610—it's shockproof up to 5 feet, capable of handling temps down to 14 degrees Fahrenheit, and waterproof up to 16 feet.

Whether you're on land or underwater, you can snap 3D photos and shoot wide-screen 720p HD movies that are crisp and clear thanks to dual-image stabilization technology. And like the TG-810, if you need more storage, you can just pop in an SD/SDHC/SDXC media card.



**Olympus TG-810**  
\$399.99

### TG-810: Even Tougher, Plus GPS To Track Your Adventures

The 14MP TG-810 can go virtually anywhere and still deliver great photos and video in extreme conditions. It's waterproof up to 33 feet, can withstand drops from up to 6.6 feet, is freezeproof down to 14 degrees Fahrenheit, and can resist up to 220 pounds of pressure.

The 5X wide-angle optical zoom lets you get close to the action, and dual-image stabilization will help keep images crisp while the large 3-inch LCD lets you see what you're shooting, even in direct sunlight. You can quickly switch to movie mode and record 720p HD videos in a widescreen format.

No matter if you're underwater or on top of a mountain, the TG-810 can shoot 3D photos, giving your adventure shots even greater depth and excitement. And with a GPS and Electronic Compass feature, you can map exactly where your photos were taken.



# Megapixels & Camcorder Video

## Time To Shed The Megapixel Myth



There's still a megapixel myth floating around. It's the idea that the more MP a digital camcorder has, the better the pictures it takes. In reality, HD camcorder video can teach us a lot about how many megapixels we *really* need.

### The Definition Of High Definition

Many of us have been wowed by the video detail of a 1080p camcorder. But at the same time, few of us would buy a 2MP digital camera because we've been conditioned to think that we need more megapixels.

Here's a little secret: A 1080p BD (Blu-ray Disc) has a 2.1MP (1,920 x 1,080) picture, and it's good enough to be called "Full HD." And really, most of those Hollywood blockbusters that look so amazing on BD have an actual resolution smaller than 2MP because their cinematic widescreen aspect ratio has to be letterboxed on a typical HDTV.

### Still Image MP Ratings

Digital camcorders can also take still images, just as digital still image cameras can also shoot video. Some HD camcorders, like digital cameras, have 10MP or higher image sensors, so they actually downscale their video to meet the minimum resolution that's needed to be Full HD: 1080.

That said, less expensive HD camcorders are built to shoot video at their native resolution. In other words, their image sensors have only one photoreceptor site for every pixel of video, namely 2.1MP resolution for 1080 footage. Some of these camcorders are marketed with 5MP or higher still photo resolutions because they can digitally upscale the images.

### Size Matters

All else being equal, a camcorder with a physically larger image sensor—also called a CMOS (complementary metal-oxide semiconductor) or CCD (charge-coupled device)—is likely to capture video of higher quality. More physical space allows the image sensor's photoreceptor sites to be bigger, so each can receive more light. A quick way to narrow down your camcorder search to the models that probably have big image sensors is to focus on the ones with large-diameter lenses.

## ESSENTIAL THINGS TO KNOW

# Camera Scene Settings

## Q What is a scene setting?

A A scene setting, or shooting mode, adjusts your camera with certain settings that are likely to result in a better-looking photo under particular conditions, such as when you're taking pictures of fireworks.

## Q How can scene settings improve my pictures?

A Shooting modes can ensure good focus on your subjects, capture color more faithfully, illuminate subjects under dim lighting without washing out their surroundings, and more.

## Q What scene settings does a typical digital camera have?

A Most digicams come with portrait and landscape modes, a backlighting mode, a sports mode for fast-moving subjects, and perhaps nighttime modes, as well.

## Q What does portrait mode do?

A This mode is for taking pictures of people. It focuses on faces, usually while leaving the background out of focus (called bokeh), and may even soften facial blemishes.

## Q What does a landscape mode do?

A This mode sets the focus to infinity, with the result that everything but near objects will look sharp. Some cameras' landscape scenes emphasize natural colors such as blue and green.

## Q What is backlighting mode?

A This scene uses fill flash to illuminate a subject in front of a bright sky or window. Normally, the brightness would disable the flash, leaving the subject too dark.

## Q How do I select a scene setting?

A On most cameras, you turn a dial or push a button on the camera body. There may also be additional modes available in the settings menu.

## Q Can a camera automatically choose a scene setting?

A Many can. While most digital cameras have a fully automatic setting, some can also pick a mode that's appropriate to the shot for a potentially better photo.

## Q Why can't I just use my camera's full auto setting?

A It's fine to leave your camera on full auto so you can capture unexpected shots. If you have time, however, select a scene setting.





# Find The Nikon COOLPIX That Fits Your Life

Nikon's COOLPIX cameras won't let you miss the joy in life, thanks to their fast start-up time, zoom capability, and low-light performance. Each offers an ultra-compact and stylish design that will deliver sharp and colorful photo results with its NIKKOR lens. With a wide range of models available, it couldn't be easier to find a camera that can keep up with your photography needs. In addition to the cameras on this page, be sure to check out the Nikon COOLPIX S6100, S80, P300, P7000, and S1100pj models that are available at Bestbuy.com.



Product Name SKU	Nikon COOLPIX L24 1987084	Nikon COOLPIX S3100 1977048	Nikon COOLPIX S4100 2044468	Nikon COOLPIX L120 2049039	Nikon COOLPIX S8100 1222844	Nikon COOLPIX S9100 1977039	Nikon COOLPIX P500 1978047
Additional Colors Available	■ 2422154 ■ 2422145	■ 2422367 ■ 2422279 ■ 2422233 ■ 2422181 ■ 2422224 ■ 2422303	■ 2044422 ■ 2422472 ■ 2422463		■ 2422506 ■ 2422712	■ 2422721 ■ 2423038	
MSRP*	\$119.95	\$139.95	\$179.95	\$279.95	\$299.95	\$329.95	\$399.95
Resolution	14MP	14MP	14MP	14.1MP	12.1MP	12.1MP	12.1MP
Zoom	3.6X optical; 4X digital	5X optical; 4X digital	5X optical; 4X digital	21X optical; 4X digital	10X optical; 4X digital	18X optical; 4X digital	36X optical; 4X digital
LCD Monitor	3 inches	2.7 inches	3 inches	3 inches	3 inches	3 inches	3 inches
Internal Memory & Compatible Cards	17MB & SD/ SDHC/SDXC	45MB & SD/ SDHC/SDXC	20MB & SD/ SDHC/SDXC	102MB & SD/ SDHC/SDXC	102MB & SD/ SDHC/SDXC	74MB & SD/ SDHC/SDXC	102MB & SD/ SDHC/SDXC
ISO	Up to 1600	Up to 3200	Up to 3200	Up to 6400	Up to 3200	Up to 3200	Up to 3200
Shooting Modes	16 Scene Modes, plus Auto	19 Scene Modes, plus Auto	20 Scene Modes, plus Auto	17 Scene Modes, plus Auto	6 Scene Auto Selector Modes, 17 Scene Modes, plus Auto	19 Scene Modes, plus Auto	19 Scene Modes, plus Auto
Movie Mode	Yes	Yes (720p HD)	Yes (720p HD)	Yes (720p HD)	Yes (1080p HD)	Yes (1080p HD)	Yes (1080p HD)
Touch-Panel Control	No	No	Yes	No	No	No	No
Battery Type	AA	Li-Ion recharge- able battery	Li-Ion recharge- able battery	AA	Li-Ion recharge- able battery	Li-Ion recharge- able battery	Li-Ion recharge- able battery
Battery Life	220 shots alkaline, 700 shots lithium	220 shots	190 shots	330 shots alkaline, 890 shots lithium	210 shots	270 shots	220 shots

\* Prices listed in this issue are for general reference and may vary from retailer pricing.

FirstGlimpse

## Which Point-&-Shoot Camera Is Best For You?

If you're a little confused about the most important features in a digital camera, you're not alone. In this chart, we compare features from select digital cameras, and we also explain what these features mean.

		<b>Resolution; Optical zoom</b>	<b>Shutter speed</b>	<b>Memory card</b>	<b>LCD size</b>	<b>Battery life</b>	<b>ISO</b>	<b>Movie mode</b>
	<b>What It Means</b>	More pixels mean bigger and clearer prints; Moves the lens closer to your subject	A faster shutter speed will let you snap action photos without blur	Removable card that stores your photos in your camera	The LCD is the screen on the back of the camera	Based on how many shots you can take on a single charge	A higher ISO lets you take better photos in low-light settings	Lets you record short video clips on your digital camera
	<b>Fujifilm FinePix Z90</b> MSRP: \$169.95* SKU 2031031	14.2MP; 5X	1/4 to 1/2,000 second	SD/SDHC/SDXC	3 inches	N/A	Auto; Manual: 100 to 3200	Yes
	<b>Samsung SH100</b> MSRP: \$199.99* SKU 1987057	14MP; 5X	1 to 1/2,000 second	microSD/microSDHC	3 inches	N/A	Auto; Manual: 80 to 3200	Yes
	<b>Sony Cyber-shot WX9</b> MSRP: \$219.99* SKU 2061086	16.2MP; 5X	2 to 1/1,600 seconds	Memory Stick Duo/PRO Duo/PRO HG-Duo/SD/SDHC/SDXC	3 inches	210 shots	Auto; Manual: 100 to 3200	Yes
	<b>Canon PowerShot ELPH 300 HS</b> MSRP: \$249.99* SKU 2044104	12.1MP; 5X	1 to 1/2,000 second	SD/SDHC/SDXC/MMC/MMC Plus/HC MMC Plus	2.7 inches	220 shots	Auto; Manual: 100 to 3200	Yes
	<b>Nikon Coolpix L120</b> MSRP: \$279.95* SKU 2049039	14.1MP; 21X	1 to 1/1,000 second	SD/SDHC/SDXC	3 inches	330 shots	Auto; Manual: 80 to 6400	Yes
	<b>Panasonic Lumix ZS8</b> MSRP: \$299.99* SKU 2061031	14.1MP; 16X	60 to 1/4,000 seconds	SD/SDHC/SDXC	3 inches	340 shots	Auto; Manual: 100 to 1600	Yes
	<b>Olympus TG-810</b> MSRP: \$399.99* SKU 2207032	14MP; 5X	1/4 to 1/2,000 second	SD/SDHC/SDXC	3 inches	220 shots	Auto; Manual: 80 to 1600	Yes
	<b>Canon PowerShot SX30 IS</b> MSRP: \$429.99* SKU 1218378	14.1MP; 35X	1 to 1/3,200 second	SD/SDHC/SDXC/MMC/MMC Plus/HC MMC Plus	2.7 inches	400 shots	Auto; Manual: 80 to 1600	Yes

\*Prices listed in this issue are for general reference and may vary from retailer pricing.

## Which Interchangeable Lens Camera Is Best For You?

As D-SLR prices keep coming down and more compact system cameras are becoming available, more photographers are turning to them, both as a first camera and as a trade-up to something better. In this chart, we'll help you sort through some of the features and performance specs of select interchangeable lens cameras.









		Resolution	LCD size	ISO range	Kit lens	Burst speed	Shutter speed	
What It Means		Image sensor in megapixels; more means a bigger image	Diagonal measurement of the screen on the back of the camera	A higher ISO range will let you take better photos in low-light situations	Standard lens bundled with the camera body	Frames per second (fps) you can shoot while in burst mode	The wider the range, the greater the gamut of long exposures to frozen action	
Compact System Cameras		<b>Olympus PEN E-PL1</b> MSRP: \$499.99* SKU 9769158	12.3MP	2.7 inches	200 to 3200	14-42mm f/3.5-5.6	3fps	60 to 1/2,000 seconds
		<b>Samsung NX100</b> MSRP: \$549.99* SKU 2466111	14.6MP	3 inches	100 to 6400	20-50mm f3.5-5.6	3fps	30 to 1/4,000 seconds
		<b>Panasonic Lumix GF2</b> MSRP: \$599.95* SKU 2176035	12.1MP	3 inches	100 to 6400	14-42mm N/A	3.2fps	60 to 1/4,000 seconds
		<b>Sony NEX-5</b> MSRP: \$699.99* SKU 1598942	14.2MP	3 inches	200 to 12800	18-55mm f/3.5-5.6	7fps	30 to 1/4,000 seconds
D-SLR Cameras		<b>Canon EOS Rebel T3</b> MSRP: \$599.99* SKU 1987075	12.2MP	2.7 inches	100 to 6400	18-55mm f/3.5-5.6	3fps	30 to 1/4,000 seconds
		<b>Nikon D5000</b> MSRP: \$629.95* SKU 9311755	12.3MP	2.7 inches	200 to 6400	18-55mm f/3.5-5.6	4fps	30 to 1/4,000 seconds
		<b>Sony A55</b> MSRP: \$849.99* SKU 1598997	16.2MP	3 inches	100 to 25600	18-55mm f/3.5-5.6	10fps	30 to 1/4,000 seconds
		<b>Nikon D5100</b> MSRP: \$899.95* SKU 1989073	16.2MP	3 inches	100 to 6400	18-55mm N/A	4fps	30 to 1/4,000 seconds

\*Prices listed in this issue are for general reference and may vary from retailer pricing.



## Which HD Camcorder Is Best For You?

HD camcorders are available with hard drive or flash drive recording formats. No matter which you choose, you'll capture memories with vivid color and true-to-life detail. To find the model that best fits your needs, consider the differences between the selections below.

		LCD size	Optical zoom; Digital zoom	Recording speeds	Memory card	Digital still resolution	Lines of resolution
	What It Means	Diagonal length of viewing screen	Two methods for magnifying depth of field; optical zoom is better	The speeds a particular camcorder can utilize during recording	Compatible flash card types (cards not included unless noted)	The number of megapixels the camcorder can capture in still images	Number of lines of horizontal resolution; the higher the number, the greater the detail
Flash Drive	 <b>Samsung HMX-Q10</b> MSRP: \$299.99* SKU 2022343	2.7 inches	10X; 20X	N/A	SD/SDHC	4.9MP	1,080
	 <b>Samsung HMX-H300</b> MSRP: \$399.99* SKU 2052403	3 inches	30X; 300X	Super Fine/Fine/Normal	SD/SDHC	4.9MP	1,080
	 <b>Canon VIXIA HF R21</b> MSRP: \$499.99* SKU 2088317	3 inches	20X; 400X	LP/SP/XP+/FXP/MXP	SD/SDHC/SDXC	3.28MP	1,080
	 <b>Panasonic HDC-TM90K</b> MSRP: \$599.99* SKU 2051186	3 inches	21X; 60X	HA/HG/HX/HE	SD/SDHC/SDXC	5MP	1,080
	 <b>Sony Handycam HDR-PJ10</b> MSRP: \$699.99* SKU 2155084	3 inches	30X; 350X	PS/FX/FH/HQ/LP	SD/SDHC/SDXC/Memory Stick PRO Duo	3.3MP	1,080
	 <b>Canon VIXIA HF M41</b> MSRP: \$799.99* SKU 2088565	3 inches	10X; 200X	LP/SP/XP+/FXP/MXP	SD/SDHC/SDXC	2.37MP	1,080
Hard Drive	 <b>Sony HDR-XR160</b> MSRP: \$599.99* SKU 2178352	3 inches	30X; 350X	PS/FX/FH/HQ/LP	SD/SDHC/SDXC/Memory Stick PRO Duo	3.3MP	1,080
	 <b>Panasonic SDR-H100K</b> MSRP: \$349.99* SKU 2009236	2.7 inches	70X; 3,500X	LP/SP/XP	SD/SDHC/SDXC	0.3MP	480

\*Prices listed in this issue are for general reference and may vary from retailer pricing.

NOTEWORTHY

# Accessories & Services

Prices for digital camcorders and cameras continue to fall as their video and picture quality improves, which is especially good news for first-time buyers or those looking to upgrade. Pairing your new camcorder or camera with the right products will bring you better photography results. Here are some must-have accessories you should consider buying to get the most out of your digital imaging device.



## UV FILTER

- Protects digital camcorder and D-SLR lenses from dust, dirt, fingerprints, and scratches
- Helps you get clearer, more detailed results when you're shooting in bright conditions



## ADDITIONAL LENSES & CONVERTER LENSES

- Extra lenses for D-SLRs and converter lenses for digital camcorders can enhance your results by extending your field of view, reducing glare, adding 3D, and more
- Telephoto lenses enable you to zoom in from far away, wide-angle lenses give you the ability to get a full view even if you're close to the subject, and macro lenses will let you achieve up-close, detailed shots of your photo subject



## MEMORY CARDS

- Keep spare memory cards on hand so you can snap away without having to worry about running out of storage space
- Consider having several memory cards with smaller capacities instead of one card with a larger capacity; that way, if something goes wrong with one card, you'll still have a backup
- For your digital camcorder, keep more recording media in your bag than you think you'll need, just in case



## EXTERNAL FLASH

- Light up your subjects from greater distances
- Offers better control of lighting conditions when taking photos by directing the angle of the flash



## SPARE BATTERIES & CHARGERS

- Make sure you're never caught without the power needed to capture the perfect moment
- Whether your camera uses proprietary batteries or AAs, keep at least one fully charged spare or set in your camera bag
- An additional battery charger will give you the flexibility to power up your camera batteries anywhere you're headed, even if you're traveling



## REMOTE SWITCH

- A longer cable lets you snap photos without having to touch the camera, which can also reduce camera shake
- May enable the user to lock the shutter for longer exposure times



## DIGITAL IMAGING SERVICES

Once you've set your sights on the camera or camcorder you want, consider taking advantage of the digital imaging services offered by your local CE retailer. Not only can you protect your investment, but you can also discover photography and videography skills that will make your photos and videos picture-perfect.

- D-SLR or Camcorder Service Plan
- D-SLR Training Course
- Camcorder Training Course



## TRIPOD

- Tripods are an easy way to ensure steady video footage
- Pan while recording video in one smooth motion
- Use a tripod and your camera's timer to get a picture of the entire group without needing someone to man the camera
- Keeps your camera steady while you're shooting close-up or distance shots, which can prevent photo blurring



# Digital Imaging Glossary

Wondering what all of that lingo on camera boxes means? Use this glossary to help decode the world of digital imaging.

**aperture**—An iris-like diaphragm opening that can expand and contract the lens to let you control the amount of light that passes through it, thus affecting the exposure. The term “f-stop” can be used interchangeably with aperture.

**burst mode**—A camera mode that will let you capture several shots consecutively after pressing the shutter only one time.

**CCD**—A charge-coupled device is a type of image-sensing component. It converts light into energy that can be stored as digital data on your camera.

**depth of field**—The area that is in focus in front of and beyond the subject of your photo.

**digital zoom**—Magnifies an image digitally by cropping it and filling in the rest with interpolated pixels, thus degrading the quality. Even if the numbers are impressive, never choose a camera based on digital zoom.

**f-stop**—See aperture. Smaller f-stop numbers mean a wider lens opening; larger f-stop numbers mean a narrower lens opening.

**ISO**—For digital cameras, the ISO setting measures the sensitivity to light (similar to how it does with film). Digital camera ISO settings, such as 200, 400, and up, should capture photos as if one were using film with such a speed. Lower ISO settings mean you need more light and vice versa.

**LCD**—The screen on the back of the camera that lets you see a live-action view of your subject or your photo after you’ve taken it.

**lens**—The apparatus on the front of the camera that gathers and directs light toward the image sensor. In a digital camera, the lens likely has both an optical and digital zoom.

**megapixel**—Approximately 1 million pixels. The higher the megapixel count, the higher the resolution and the more you can crop, which means you can create larger prints with better quality.

**memory card**—Because digital cameras have very little onboard memory, they need flash memory cards to store more than a dozen or so images. The type of memory card you need depends on the make and model of your camera. Some of the most popular memory cards are Secure Digital, MultiMedia Card, Compact Flash, and Sony Memory Sticks. In general, memory cards are quite small.

**noise**—The small statistical variations among pixels that lead to (usually) minor distortions of color in a photo.

**optical zoom**—The camera’s mechanical ability to move the lens physically closer to your subject. With optical zoom, the higher the number (such as 5X or 10X), the better. When choosing a camera, always consider the optical zoom, not the digital zoom. Digital zoom artificially adds pixels.

**resolution**—The number of pixels in an image. The higher the resolution, the more detail and quality in a photo. Resolution is measured in a proportion (such as 2,272 x 1,704).

**shutter**—A mechanism that opens and closes to allow light to pass through the lens. You can usually control the camera’s shutter speed.

**shutter speed**—The length of time a camera’s shutter is open to let light through the lens and hit the sensor, which records the image. This is expressed in fractions of a second: For instance, a shutter speed of 1/250 means that the shutter is open for 1/250th of a second.

**viewfinder**—The small opening in the camera that the user looks through to frame a shot. Some digital cameras don’t have a viewfinder and only use a camera’s LCD to frame the shot.

**white balance**—Light levels are adjusted electronically to ensure whites in a certain environment are pure, leading to more life-like colors. White balance can usually be manually adjusted, too.



**lenovo**

# Attractive, Powerful & Secure

## Lenovo® IdeaPad® V570

Offering a stylish aluminum casing and a thin 1.3-inch body, the IdeaPad V570 (\$729.99) is a lightweight travel companion. But the V570 isn't all about beauty, because it also features a variety of components to enhance the notebook's entertainment, power, and security capabilities. Read on to learn why this system is ideal for enjoying your favorite media, checking email, and more.



Lenovo IdeaPad V570 | \$729.99

### Power Packed Parts

You'll be able to maximize your productivity with the V570, because Lenovo installed a 2nd Generation Intel® Core™ i5 dual-core processor that offers four threads and supports Intel's Turbo Boost to speed the processor up to 2.9GHz. The V570 also comes with 6GB of memory to improve responsiveness when you multitask among several applications.

### Now That's Entertainment

The V570 includes Integrated Intel® HD Graphics 3000 that can play back HD video on the laptop's 15.6-inch widescreen display. The large LED screen is ideal for showcasing presentations to a group, but with its ability to open as far as 135 degrees, you'll always be able to find the best viewing angle when watching a DVD via the laptop's built-in DVD burner for personal entertainment.

### Built To Be Secure

A built-in fingerprint reader, combined with the Lenovo Security Suite, helps to protect the data on your computer. You can password protect any sensitive files in a special storage area on the V570. Lenovo also includes its OneKey Rescue software, so that you'll be able to quickly recover the laptop if there's a failure.

### Good For The Planet

With an Energy Management utility built into the V570, you can decrease energy consumption and extend the battery life. Selecting among several power saving modes as well as an option to lower the laptop's fan speed to decrease noise are just some of the options available.

### Key Specs

- 15.6-inch LED HD widescreen
- 2nd Generation Intel® Core™ i5 processor with Intel® Turbo Boost Technology
- 640GB hard drive and 6GB of memory
- Integrated Intel® HD 3000 Graphics
- 2MP Web cam
- Connectivity options include 802.11b/g/n, Intel WiMAX, and Gigabyte Ethernet

# A Tablet & Laptop Make A Great Student Combo

## Collaborative Devices For The Academic



If you want to be a more efficient student, consider the advantages of having both a tablet and a laptop. With this powerful combo, you'll not only improve your studies, but you'll also have quick and easy access to the media you need. Read on to learn why having both devices is beneficial.

### Perfect Companions

It's important to understand that a tablet doesn't replace your laptop or desktop computer. Instead, a tablet is a mobile companion that complements your computer, and it can help simplify your computing tasks. Just like laptops, all tablets offer some form of connectivity, such as Wi-Fi or 3G/4G. However, tablets are more lightweight and portable, making them effective for taking quick notes, keeping track of to-do lists, checking email, updating social media profiles, and retrieving media.

### Easy Data Backups

While tablets have very little internal storage, a laptop offers plenty. By connecting the two devices, you can transfer and back up any tablet files on your laptop's hard drive. This is convenient for many situations, such as when you need to back up digital presentations saved on your tablet before you share them with classmates. When it comes to entertainment, you can sync songs and other media between both devices, so you can listen to your favorite albums on your tablet while studying at the student union.

### Quick Media Access

With the right app, a tablet can be used as many different tools. For example, you can use an eReader app on your tablet to quickly access an online reading assignment and use your laptop to write a paper that details your thoughts on particular passages. Your tablet can also access novels, magazines, and nonfiction titles via an eReader app, so you can read different types of references for class or enjoy material that's not school-related during your downtime. For additional research or entertainment, many tablets include a video app that can store and play self-made videos or downloaded content.

# Turn Your USB Modem Into A Wi-Fi Hotspot

## CradlePoint CTR35 & MBR95 Routers



Different from typical routers, the CradlePoint Wireless N Portable Router and Wireless 4G/3G Router (\$79.99 and \$119.99, respectively; [www.cradlepoint.com](http://www.cradlepoint.com)) use 3G/4G mobile broadband to create secure Wi-Fi wherever you receive a cellular signal. By plugging in a USB modem, you can make the most of your 3G/4G service plan and create a secure Wi-Fi hotspot for reliable high-speed Internet access in almost any situation.



**CradlePoint CTR35  
Wireless N  
Portable Router**  
\$79.99  
[www.cradlepoint.com](http://www.cradlepoint.com)

### CTR35 Wireless N Portable Router

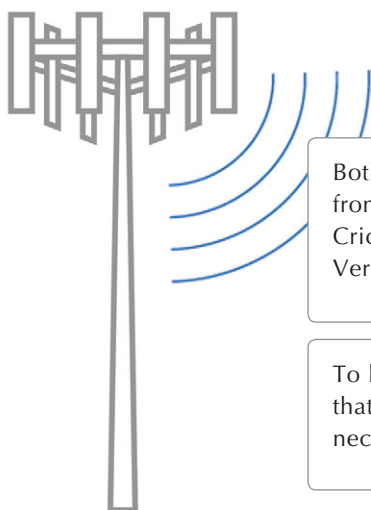
Ideal for those who need to stay connected as they travel, boat, work remotely, and more, the CradlePoint CTR35 router can go wherever you go. Whether you're vacationing on a beach or working on a construction site, by plugging your USB modem into the CTR35 you can create a secure wireless network.

To fit a variety of situations, the router offers many data connection options. For instance, Ethernet-only devices, such as a computer or printer, can be connected to the Wi-Fi network using the CTR35's Ethernet port. The same Ethernet port can also be used to connect a Cable, DSL, or satellite modem to create a wireless network in areas where 3G/4G mobile broadband service is unavailable. Unsecured public Wi-Fi hotspots can also be used as a data source by the CTR35 router to create a secure private network. With the flexibility to connect a variety of devices, you'll be able to get the most from your favorite Web-capable devices such as laptops, tablets, smartphones, DVRs, TVs, cameras, game consoles, and more.

### Key Features

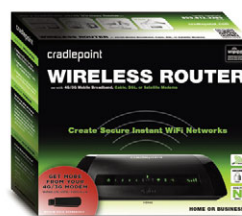
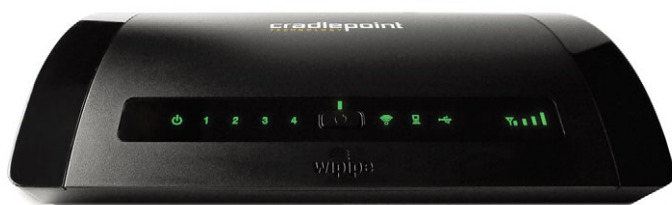
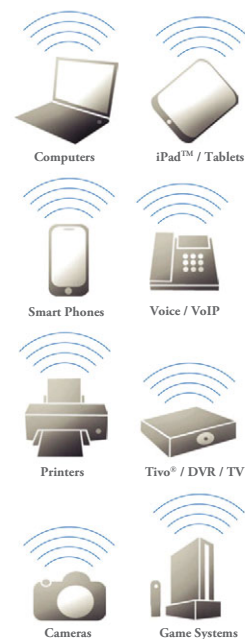
- Supports up to 16 Wi-Fi connections
- Up to 350-foot Wi-Fi range
- Wireless "N" Wi-Fi (802.11b/g/n)
- Use the Ethernet port to connect devices without Wi-Fi
- Small size fits in your pocket or backpack
- Enjoy the flexibility to choose your data modem provider; switch at any time
- Option to use public Wi-Fi as a data source





Both CradlePoint routers support 3G/4G USB modems from U.S. service providers such as: AT&T, Clearwire, Cricket, Rogers, Sprint, T-Mobile, Telus, US Cellular, Verizon Wireless, and Virgin Mobile.

To learn more about what 3G/4G is and the devices that can take advantage of this fast wireless data connection, see "Mobile Broadband" on page 51.



**CradlePoint MBR95  
Wireless 4G/3G Router**  
\$119.99

## MBR95 Wireless 4G/3G Router

Building on the core features of the CTR35 Wireless N Portable Router, the CradlePoint MBR95 Wireless 4G/3G router can support even more devices with a larger Wi-Fi broadcast area with more advanced features.

The MBR95 can quickly create two Wi-Fi networks, one that's private and one for guests to use. This ensures you keep your private network secure, while friends, family, or co-workers can use your Internet connection via the guest network.

Up to four Ethernet devices can be connected to the router in little to no time, accommodating computers, VoIP (Voice over IP) phones, multifunction printers, and more.

Small businesses will appreciate the MBR95's highly customizable security settings and failover/failback option, providing a secure, reliable network when you need it most and keeping your business network online.

In addition to being a home or business tool, the MBR95 is also ideal for instantly creating wireless networks for special events, tradeshow, construction sites, and rural or vacation homes where Cable or DSL may not be available.

## Key Features

- Supports up to 32 Wi-Fi connections
- Up to 600-foot Wi-Fi range
- Wireless N Wi-Fi (802.11b/g/n)
- Create two secure Wi-Fi networks (SSIDs): one private network and one guest network
- Four Ethernet ports to connect Ethernet-only devices to the network
- VPN pass-through creates a secure tunnel to corporate networks
- Failover/failback feature provides "always on" Internet



# Tablet Security

## An Ounce Of Prevention

Tablets are as vulnerable to malware attacks, data theft, and other threats as any computer, especially as they're almost always connected to the Internet. Whether you're a businessperson, student, or family with a tablet, it's important to take some basic precautionary measures to ensure that your device remains healthy and your data is secure.

### Stay Safe Online

In addition to employing safe practices when you're online, such as using secure Web sites whenever possible and recognizing and avoiding phishing scams, it pays to have software in place that can detect and thwart viruses and other malware before it can infect your tablet.

Take for example the tablet apps you download to add new functions and features to your device. While the options in a tablet app store may look legitimate, an app might be embedded with malicious code. Security software for your tablet can detect such threats and prevent you from downloading a bad app.

### Physical Security

While it's important to keep your tablet safe from online dangers, it's also important to consider the physical security of your tablet. This includes preventing unauthorized access to the device and keeping it from becoming lost or stolen.

There are online services that will track a missing tablet, so no matter where it is—left on a classroom desk or in a thief's car trunk—you can find where your device is located, and if needed, contact the authorities.

In the event your tablet leaves your possession, security software that includes login credentials, such as a username and password, can stop unauthorized users from being able to use your tablet. Without access, any sensitive information stored on your device, such as banking account information, credit card numbers, or Social Security numbers, will remain secure against prying eyes.

# Cloud Computing Basics

## How To Push & Pull Content

Many of us know that cloud computing enables us to access personal data, on-demand services, and media stored on remote Internet-connected computers via a Web browser vs. using locally installed software. Some, however, aren't clear on how they can take advantage of the ability to send and retrieve (or push and pull) content. The following outlines examples for four common cloud computing-based scenarios.

### Office Documents At The Ready

Upon creating an account for a cloud-based productivity suite, a college student can create word, spreadsheet, and presentation documents featuring photos, data, and illustrations pushed from her laptop and online storage services for a course project. She then edits and shares the files via her laptop, tablet, and PC from her dorm room, library, and parents' house before downloading them for printing, emailing, and uploading to university servers.

### The Big Game On Demand

Rather than bemoan a weekend work retreat that will cause him to miss this afternoon's big game, a business exec launches an app on his Internet-connected smartphone to access the TV appliance connected to his DVR back home and schedule a recording. Later, he uses the same application to stream and watch the game on a tablet in his hotel room.



### Connect With Customers

To communicate with customers, a real estate agent uses tools a social network hosts online to create a company page. She then posts photos of properties, open house updates, and price reductions from her smartphone, tablet, and PC when needed, all without Web site maintenance, software updates, or upgrades required. Additionally, customer comments, questions, and other notifications are automatically pushed to her devices.

### Music In The Sky

Before heading overseas to study, a high school student pushes music tracks stored on her PC to a cloud-based music service. Once overseas, she pulls the files from the service to supported Internet-connected devices, including a smartphone and tablet. Further, she pushes music purchases made overseas to the service for access from anywhere, including her PC back home.



# For Home, Office, Or Dorm

## Brother MFC-J270W, MFC-J630W & HL-2270DW Wireless Printers

Brother's ([www.brother.com](http://www.brother.com)) wireless color MFC-J270W (\$99) and MFC-J630W (\$149.99) inkjet and award-winning monochrome wireless laser HL-2270DW (\$149.99) pack impressive, easy-to-use features ideal for students and SOHO users at budget-friendly prices.

MFC-J270W  
\$99.99  
SKU# 1148518



MFC-J630W  
\$149.99  
SKU# 9955666



HL-2270DW  
\$149.99  
SKU# 1148536



### Easily Adaptable

At just 5.9 x 15.4 x 14.5 inches and 7.1 x 15.4 x 14.8 inches (HxWxD), respectively, the MFC-J270W and MFC-J630W adapt to any space, including cramped dorm rooms and tiny offices. The HL-2270DW, meanwhile, measures only 7.2 x 14.5 x 14.2 inches (HxWxD) but still includes a 250-sheet tray for letter- and legal-sized paper prints and a manual feed slot for envelopes and letterheads for various business needs. All three models integrate wireless connectivity to support multiple users while eliminating cables, and with Brother's free iPrint&Scan app, the MFC-J270W and MFC-J630W can print JPEG images and PDF documents from mobile devices; also scan documents and images from printer to smartphone.

### Cost Cutters

Counting pennies is a must for many students and business owners. The HL-2270DW is a laser printer that offers automatic duplexing support for two-sided prints and its Toner Save Mode further helps conserve paper and toner. The MFC-J270W and MFC-J630W's 4-Cartridge Ink System, meanwhile, means only changing a cartridge that's empty, while the MFC-J630W ships with a bonus second black ink cartridge and offers an Ink Save Mode.

### Intelligent & Intuitive

Specializing at printing top-notch prints quickly and without a fuss, the MFC-J270W (33ppm black; 27ppm color) and MFC-J630W (35ppm black; 28ppm color) offer up to 6,000 x 1,200 dpi resolution, while the HL-2270DW (27ppm) prints crisp, clear, professional-level prints at up to 2,400 x 600 dpi. Beyond creating color-accurate borderless photos, the MFC-J270W can copy and scan text from bound books, while the MFC-J630W's 15-sheet document feeder supports unattended faxes, copies, and scans.

Brother's award-winning laser printers can be found at Best Buy and [Bestbuy.com](http://Bestbuy.com).



FirstGlimpse

BY BLAINE FLAMIG



# How To Set Up A Wireless Printer

## A Quick & Easy Process

Wi-Fi capabilities free a printer from the shackles of Ethernet and USB cables, letting you place the printer wherever it is most convenient for your lifestyle, rather than wherever the wires allow. To wirelessly connect a printer to your wireless network, it's likely you'll follow one of three simple methods below. Read on to learn which steps apply to your situation, and you'll have your printer wirelessly hooked up in no time.

### Method 1: One-Touch

Printers that support a one-touch setup will need to be paired with a router that supports WPA (Wi-Fi Protected Access) and WPA2 encryption, and feature a one-touch setup button and WPS (Wi-Fi Protected Setup).

- Access the network setup menu using the printer's screen menus
- Locate and choose the push button setup on the printer
- Press the WPS button on your router to complete the connection
- Once connected to the network, install the printer's software on your PC

### Method 2: Setup Wizard

If you don't have a router or wireless printer with WPS and push button capabilities, you may need to use the printer's setup wizard.

- Access the setup menu from the printer and launch the wireless setup wizard
- Select the SSID (Service Set Identifier) or the name of the home network you want the printer to connect to
- Enter your Wi-Fi network's password
- Once connected to the network, install the printer's software on your PC

### Method 3: Cable

Wireless printers that don't support a one-touch button or feature an integrated setup wizard will need to be set up with a cable connection. It's worth noting that most wireless printers (even those that support one-touch setup and a setup wizard) can use this type of setup, making it your best option if you encounter problems with the other two methods.

- Start by installing the printer software on your PC
- When prompted, connect the printer to your PC using the included (or optional) USB cable
- Wirelessly connect the printer to your home network using the printer's on-screen settings or the printer software on your PC
- Remove the USB cable

# Intel Processors For Students

## Prepare Them For The Upcoming School Year

If you are looking to buy a new computer for your student as they prepare to go back to school, consider the unique features and benefits the 2nd Generation Intel Core processors ([www.intel.com](http://www.intel.com)) have to offer.

### Next-Level Visuals




With a 2nd Generation Intel Core processor, your student will experience stunning and seamless visuals thanks to advanced built-in visual technologies.

Intel Clear Video HD Technology delivers lifelike audio and video and even extends battery life when he is enjoying 3D and HD playback.

Intel Quick Sync Technology's hardware acceleration significantly reduces the time it takes for a student to edit, burn, and share his creations with friends and family.

Intel HD Graphics has built-in performance for mainstream gaming and provides stunning graphics for all of his entertainment needs.

### A Processor For Any Student

- Intel Core i3.**  Great for running multiple programs at once, the Core i3 processor delivers superb battery life and reduces energy consumption. The multitasking student will appreciate how well the Core i3 manages basic computing tasks with **4-way processing**.
- Intel Core i5.**  Anyone in need of a high-performance processor that will handle numerous applications simultaneously can count on the **4-way processing** and **Turbo Boost** technology the Core i5 has to offer. So if, for example, your student is a media creator or a casual or moderate gamer, the Core i5 is perfect for him.
- Intel Core i7.**  The Core i7 is ideal for projects that require high-performance graphics and intensive multitasking. Thanks to **8-way processing** and **Turbo Boost** technology, the Core i7 can easily handle the heavy workload of a student taking graphic design or computer programming classes while also keeping up with the performance demands of video editors and hard-core gamers.





## Intel AppUp<sup>TM</sup> center

With Intel's AppUp center ([www.bestbuy.com/appup](http://www.bestbuy.com/appup)), students with Intel Atom-based netbooks will find scores of apps that were built to take advantage of the processor's advanced capabilities. Just like a smartphone app store, the Intel AppUp center gives her a place to search for and download apps to customize a netbook to match her educational and entertainment needs. She can search for apps or browse by categories, including Staff Picks, What's Hot, and New Releases. Apps can be tried out for 24 hours before committing to a purchase. From one of today's most popular smartphone apps, Angry Birds, to classics such as Pac-Man, the Intel AppUp center has your student covered.



### PC Theft Defense

Powered by Intel Anti-Theft Technology and built into select 2nd Generation Intel Core processors, PC Theft Defense Service lets students shut down their laptop in the event it becomes stolen or lost and render it useless to thieves. A student is always on the go—from the library, to the dorm, and across campus to attend class. If a student accidentally leaves behind their laptop in any of these places, PC Theft Defense will protect their mobile assets. If the system doesn't turn up, a "poison pill" can be sent to the laptop to turn it into an inoperable brick, so no one can access any sensitive data on the machine. And if they luck out and the laptop is found, restoring it is as simple as entering her password or single-use token. Select Blue Label laptops from Best Buy include three years of PC Theft Defense Service at no extra charge.



### Let Them Share Their Laptop Content On An HDTV

Intel Wireless Display, also known as WiDi, is a technology built into many of the laptops based on 2nd Generation Intel Core processors. This technology lets students display what they see on their notebook screen on their HDTV with great image clarity and amazing sound, by simply using the Netgear Push2TV adapter and clicking a button. Students will be able to share photos, videos, and more with their friends, without everyone needing to huddle around the laptop.





## WiMAX Benefits For Students

WiMAX is ideal for all types of students seeking a fast, bandwidth-capable wireless connection. With high-speed mobile broadband you can:

- Access school and personal email from more places
- Place a Voice-over-IP phone call to friends and family
- Stream hiccup-free audio and video
- Quickly download music
- Simultaneously maintain video, audio, and voice connections

# Intel 4G WiMAX

## Built-In Connectivity For Students

Whether your student wants to edit class assignments that he's saved online, update his social-networking status, or videoconference with friends and family, Intel's high-speed 4G WiMAX wireless networking technology lets him connect to the Web all around town. Gone are the days where students need to rely on limited Wi-Fi hotspots—they'll be able to connect so long as they're within a 4G WiMAX service area. What's more, a 4G WiMAX notebook will also deliver data four times faster than 3G.

### Buy Embedded & Get Connected

4G WiMAX is built into a variety of laptops. In fact, nearly every Intel Core-based laptop available at Best Buy has 4G WiMAX built in. Choosing a notebook with 4G WiMAX means students won't have to worry about carrying around, and possibly losing or breaking, extra hardware such as a USB dongle or mobile hotspot. Take a look at the accompanying chart to find a model with this technology built right in.

To compliment a 4G WiMAX laptop, there are a number of 4G WiMAX mobile broadband service plans available, including some as low as \$45 per month for unlimited data. See [www.bestbuyconnect.com](http://www.bestbuyconnect.com) for plan details.

## Intel 2nd Generation Core Processor Notebooks\*

	4G WiMAX	Intel Wireless Display
Asus G74SX-BBK7	✓	✓
Asus U46E-BAL5	✓	✓
Asus U56E-BBL5	✓	✓
Dell i14RN4110-7616DBK	✓	
Dell i15RN5110-5816DBK	✓	
Dell i17R-6434DBK	✓	
HP dm4-2015dx	✓	
HP dv7-6135dx	✓	
Lenovo V570-1066A9U	✓	✓
Samsung NP-QX411-W01	✓	✓
Samsung NP-RC512-W01	✓	✓
Samsung NP-RV520-W01	✓	✓
Sony VPCEG16FM/W	✓	✓
Sony VPCEH14FM	✓	✓
Sony VPCF226FM	✓	✓
Sony VPCSC1AFM/S	✓	✓
Toshiba E305-S1990X	✓	✓
Toshiba P745-S4217	✓	✓
Toshiba P755-S5215	✓	✓
Toshiba P775-S7215	✓	✓

\*Check with an associate to see which models are currently available.

Legal Disclaimer: (WiMAX 4G claim) Actual performance will vary depending on your service provider and other variables. WiMAX availability is limited; consult your service provider for details and network limitations. Requires a WiMAX-enabled device and subscription to a WiMAX broadband service. May require purchase of additional software or hardware. See <http://www.intel.com/go/wimax> for more information.

# All-In-One Advantages

## Space Savers With Smart Features

Desktop computers can take up a lot of space. Besides the system itself, you'll need room on your desk for a monitor, keyboard, and mouse. All-in-one computers, however, offer the same functionality but are designed to save space.

### Space Saving

With an all-in-one, the various components (processor, hard drive, monitor, memory, among others) are built into a case that looks like a computer monitor. Connectivity and peripheral devices that are typically found on computers, such as Wi-Fi, a memory card reader, USB ports, and a disc drive, are also built into the body of an all-in-one. Because they're versatile and can be placed in almost any area, they're ideal for a college student's dorm room, kitchen, child's room, or garage.

### Touchscreen

With a built-in touchscreen, you'll be able to control the PC using intuitive gestures. For example, by placing two fingers on the screen and moving them closer or farther apart, you'll be able to zoom in or out of the content displayed on-screen. Swiping, or sliding your finger to one side or up and down, enables you to scroll on-screen content.

### Stunning Video & Audio

Many all-in-one computers have screens that are 20 inches or larger (measured diagonally), making them great for online entertainment, such as streaming videos or Web site content. All-in-one computers also feature built-in speakers—some of which are surround-sound capable—to provide high-quality audio for the best movie and music entertainment experience. A large screen and built-in speakers make an all-in-one a good choice for students who want a PC that can double as an entertainment center.



### Networking Made Easy

All-in-one PCs typically provide built-in Wi-Fi, so you won't need to run an Ethernet cable to the system for Internet access. Without being tied down to a network with cable, you can place a compact all-in-one in a number of different places. But if you do decide to move the location of an all-in-one, there's not as much work involved because you won't have to disconnect, move, and reconnect network cables to the computer.



## ESSENTIAL THINGS TO KNOW

# Advanced Processor Technologies

## Q What is a processor?

A Also called a CPU (central processing unit), a microprocessor is the primary chip in a computer. It runs software and handles the input and output of connected devices.

## Q What is the biggest new addition to CPUs?

A On-die graphics acceleration is the major news. You'll find it in processors such as AMD's Fusion APU (accelerated processing unit) and Intel's 2nd generation Core chips.

## Q What are on-die graphics?

A Integrated graphics used to be built into the chipset (main support chip[s]) of a computer's motherboard, taking the place of a video card. On-die graphics brings video processing into the CPU.

## Q Why are on-die graphics important?

A They can speed up a computer's CPU-graphics communication, and they may lead to reduced notebook pricing if compatible chipsets become less expensive. Also, they can accelerate particular computing tasks such as video processing when you're turning HD camcorder footage into BDs.

## Q What is virtualization support?

A There are AMD and Intel CPU-based systems that can accelerate virtual computing tasks, such as running one operating system within another OS as an application, not directly on the hardware.

## Q What is AES encryption acceleration?

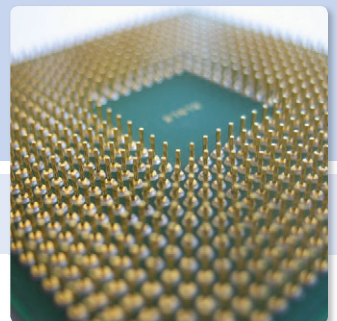
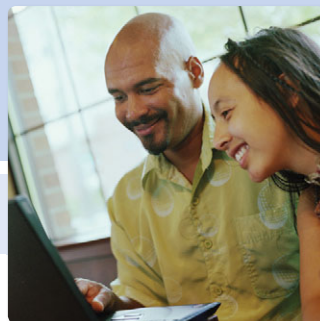
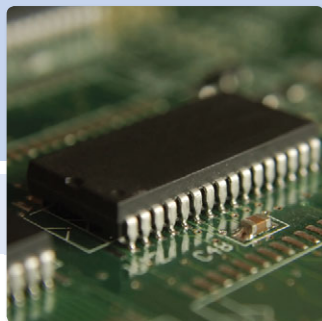
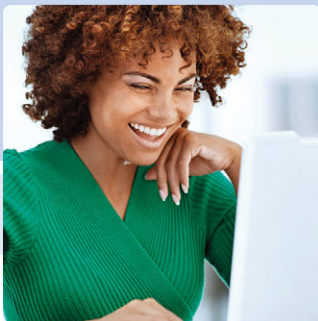
A This is baked-in support for encrypting and decrypting data in the Advanced Encryption Standard format. AES acceleration can speed up secure Web communication, encrypted file access, and more.

## Q What is an unlocked chip?

A Certain processors have frequency multiplier settings left unlocked by their manufacturer, which makes them easier for advanced computer users to overclock for faster performance. Overclocking increases the chip's operating speed.






## Q What is dynamic overclocking?

A CPUs with Turbo Boost or a similar feature can temporarily turn off one or more processing cores and speed up others to boost certain programs without generating excessive heat.



# Which Laptop Computer Is Best For You?










A laptop computer is a pretty big purchase for most people, and it's usually a bit overwhelming, too. This chart compares the features and specs from several different types of laptop models.

		Operating system	Processor	Hard drive size; RAM	Graphics Card	Dimensions; Weight	Optical drives; Media card reader
	What It Means	The software (usually Windows or Mac OS X) that controls your computer	Chip that controls the computer (typically, a bigger number is better)	How much data the computer can hold; Memory that's read and written to	Controls the quality of your video and images	Height x width x depth; How much the laptop weighs; Screen size	Drives that can read and write discs; Slots that read media cards without a separate peripheral
	<b>HP 4520s</b> MSRP: \$599.99* SKU 2381426	Windows 7 Professional	2.53GHz Intel Core i5	500GB; 4GB	Intel HD	2.3x16.1x10.6 inches; 6 pounds; 15.6 inches	DVD±RW/CD-RW; N/A
	<b>Lenovo V570</b> MSRP: \$729.99* SKU N/A	Windows 7 Home Premium	2nd Gen 2.3GHz Intel Core i3	640GB; 6GB	Intel HD 3000	1.27x14.9x9.9 inches; 8.16 pounds; 15.8 inches	DVD±RW; Yes
	<b>Asus U43F-BBA6</b> MSRP: \$749.99* SKU 1773105	Windows 7 Home Premium	2.66GHz Intel Core i5	640GB; 6GB	UMA	1.3x13.5x9.5 inches; 5 pounds; 14 inches	Double-layer DVD±RW/CD-RW; Yes
	<b>Toshiba Portege R835-P50x</b> MSRP: \$749.99* SKU 1930072	Windows 7 Home Premium	2nd Gen 2.1GHz Intel Core i3	640GB; 4GB	Intel HD	1.1x12.4x8.9 inches; 3.2 pounds; 13.3 inches	Double-layer DVD±RW/CD-RW; Yes
	<b>Dell Inspiron I17R-2950MRB</b> MSRP: \$799.99* SKU 1180025	Windows 7 Home Premium	2.53GHz Intel Core i5	640GB; 6GB	Intel HD	0.8x16.5x10.9 inches; 6.7 pounds; 17.3 inches	DVD±RW/Blu-ray Disc/CD-RW; Yes
	<b>Sony VAIO VPCEA46FM/W</b> MSRP: \$799.99* SKU 1892044	Windows 7 Home Premium	2.53GHz Intel Core i3	640GB; 4GB	Intel HD	1.1x13.6x9.4 inches; 5.2 pounds; 14 inches	DVD±RW/Blu-ray Disc/CD-RW; Yes
	<b>Samsung Series 9</b> MSRP: \$1,649.99* SKU 2235309	Windows 7 Home Premium	2nd Gen 1.4GHz Intel Core i5	128GB; 4GB	Intel HD 3000	0.64x12.9x8.9 inches; 2.88 pounds; 13.3 inches	No; Yes
	<b>Samsung RC512-S02</b> MSRP: \$1,899.99* SKU 2520119	Windows 7 Home Premium	2nd Gen 2GHz Intel Core i7	750GB; 6GB	Nvidia GeForce GT525M	1.5x14.9x10 inches; 5.3 pounds; 15.6 inches	Double-layer DVD±RW/Blu-ray Disc/CD-RW; Yes

\*Prices listed in this issue are for general reference and may vary from retailer pricing.

## Which Tablet Or eReader Is Best For You?

By pairing your laptop with a tablet, you'll be able to simplify your computing tasks in ways you probably hadn't considered before. eReaders, on the other hand, give you instant access to the latest books as well as newspapers, magazines, games, and more. To find a tablet or eReader that best fits your digital lifestyle, here's a comparison of the latest models.

		Platform	Internal storage	Connectivity	Battery life	Dimensions; Weight	Ports; Media card reader	
	What It Means	The software that controls a tablet	How much data the tablet can hold	How the tablet can connect to the Web (Wi-Fi, 3G, or both)	How long the battery will last when the tablet is being used	Height x width x depth; Screen size; How much the tablet weighs	Sockets that give a tablet access to peripherals; Slots that can read media cards	
Tablets		<b>Asus Eee Transformer<sup>†</sup></b> MSRP: \$399.99*; \$499.99* SKU 2475112	Android 3.0	16GB; 32GB	Wi-Fi	9.5 hours	10.7x6.7x0.5 inches; 10.1 inches; 24 ounces	1 headphone, 1 mini HDMI; microSD
		<b>BlackBerry PlayBook</b> MSRP: \$499*; \$599*; \$699* SKU 2387041	BlackBerry Tablet OS	16GB; 32GB; 64GB	Wi-Fi	Not specified	7.6x5.1x0.4 inches; 7 inches; 14.4 ounces	1 mini USB, 1 micro HDMI; N/A
		<b>HP TouchPad</b> MSRP: \$499.99*; \$599.99 SKU N/A	HP webOS	16GB; 32GB	Wi-Fi	Not specified	9.45x7.48x0.54 inches; 9.7 inches; 25.6 ounces	1 mini USB, 1 headphone; N/A
		<b>Samsung Galaxy Tab 10.1</b> MSRP: \$499.99*; \$599.99 SKU 2817743	Android 3.1	16GB; 32GB	Wi-Fi	14 hours	10.1x6.9x0.34 inches; 10.1 inches; 20 ounces	1 USB 2.0 (with optional accessory), 1 headphone, 1 HDMI out (with optional accessory); N/A
eReaders		<b>Amazon Kindle</b> MSRP: \$139* SKU 2506094	Not specified	4GB	Wi-Fi	1 month	7.5x4.8x0.3 inches; 6 inches; 8.5 ounces	N/A
		<b>Kobo Wireless eReader</b> MSRP: \$139* SKU 2270049	Not specified	1GB	Wi-Fi	10 days	7.2x4.7x0.4 inches; 6 inches; 7.8 ounces	1 USB; SD
		<b>Barnes &amp; Noble nook Simple Touch</b> MSRP: \$139.99 SKU N/A	Not specified	2GB	Wi-Fi	2 months with Wi-Fi turned off	6.5x5x0.47 inches; 6 inches; 7.48 ounces	1 mini USB; microSD
		<b>Velocity Micro Cruz Reader T301</b> MSRP: \$199.99* SKU 1991469	Android 2.2	2GB	Wi-Fi	10 hours	7.5x5.6x0.6 inches; 7 inches; 16 ounces	1 mini USB, 1 headphone; SD
		<b>Barnes &amp; Noble nook Color</b> MSRP: \$249* SKU 1517163	Not specified	8GB	Wi-Fi	8 hours	8.1x5x0.48 inches; 7 inches; 15.8 ounces	1 mini USB, 1 headphone; 1 microSD

<sup>†</sup>Optional keyboard docking station can be purchased for \$149.99.

\*Prices listed in this issue are for general reference and may vary from retailer pricing.



# Software Listings

## Get More Out Of Your PC

Computers can be used to create greeting cards, play games, keep track of your finances, and more. The thing is, most of these functions aren't available straight out of the box. To fully harness your computer's potential, you'll need to buy software. Here are some options.

### Audio, Photo & Video



#### Adobe Photoshop Elements 9

\$99.99\*

[www.adobe.com](http://www.adobe.com)

Easily edit, share, and manage your photo collection and get professional results using Adobe Photoshop Elements 9.



#### Broderbund Print Shop 2.0 Professional

\$89.99\*

[www.broderbund.com](http://www.broderbund.com)

Create sophisticated projects using the Wizard Design tool or a ready-made template. You can create greeting cards, banners, newsletters, photo projects, and more.



#### Roxio Creator 2011

\$99.99\*

[www.roxio.com](http://www.roxio.com)

Use Roxio Creator 2011 to easily capture, enhance, and preserve your photos, videos, and audio projects. New features include 3D effects, video stabilization and rotation, and a redesigned backdrop interface. 3D glasses are also included.



#### Corel PaintShop Photo Pro X3 Ultimate

\$99.99\*

[www.corel.com](http://www.corel.com)

Corel PaintShop Photo Pro X3 lets you manage, edit, and share your digital photos. Make automatic fixes in the enhanced Express Lab or you can use the included advanced editing tools.



#### Pinnacle Studio HD Ultimate Collection 15

\$129.99\*

[www.pinnaclesys.com](http://www.pinnaclesys.com)

Pinnacle Studio Ultimate HD

Collection 15 comes with a full set of plug-ins and a Chroma-key green screen for advanced effects, editing, and production.



#### Adobe Premiere Elements 9

\$99.99\*

[www.adobe.com](http://www.adobe.com)

Turn your home videos into movies using special effects, music, and images from Adobe Premiere Elements 9. Once you're done, you can share them via disc or the Internet.



#### Roxio Easy VHS To DVD

\$59.99\*

[www.roxio.com](http://www.roxio.com)

Use Roxio's Easy VHS To DVD software to easily transfer video from VHS, Hi8, V8, or analog camcorders to DVD. You can also edit the video and add professional effects.



#### Nero 10 Multimedia Suite Platinum HD

\$99.99\*

[www.nero.com](http://www.nero.com)

Nero 10 Multimedia Suite Platinum HD makes it easy to import video from nearly any source, add effects, and then burn the final result to BD, DVD, or CD. You can also share it between mobile devices.

### Business Applications



#### Microsoft Office Home & Student 2010

\$149.99\*

[www.microsoft.com](http://www.microsoft.com)

The Home and Student version of Microsoft Office 2010 has enhanced features for creating and managing documents and includes Word, Excel, PowerPoint, and OneNote.



#### Individual Software ResumeMaker Professional

\$29.95\*

[www.individualsoftware.com](http://www.individualsoftware.com)

It's easy to write a professional résumé quickly using ResumeMaker Professional. The software also includes advanced search tools.

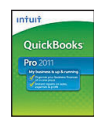


#### Rosetta Stone Version 4 Spanish (Latin America)

\$179.99\*

[www.rosettastone.com](http://www.rosettastone.com)

Learn basic Spanish conversational skills, including greetings and introductions, simple questions and answers, shopping, and much more with the Rosetta Stone Version 4 Spanish.



#### Intuit QuickBooks Pro 2011

\$229.95\*

[quickbooks.intuit.com](http://quickbooks.intuit.com)

Easily keep track of your company's finances with QuickBooks Pro 2011. You can view expense and income breakdowns, account balances, and more, so it's easy to know where your money is going.

\* Prices listed in this issue are for general reference and may vary from retail pricing.

**FirstGlimpse**

## Games/ Entertainment



**Activision Barbie  
& The Three  
Musketeers**  
\$19.99\*

[www.activision.com](http://www.activision.com)  
Choose a character with a unique ability to help you tackle obstacles and solve puzzles to uncover a plot against the prince and become a true musketeer.



**Disney Interactive  
Studio Alice In  
Wonderland**  
\$19.99\*

[disney.go.com/disneyinteractivestudios](http://disney.go.com/disneyinteractivestudios)  
Inspired by the Tim Burton film, this game lets you fall down the rabbit hole and experience Alice's adventure in Wonderland. You can play as the Mad Hatter, White Rabbit, or another character from the film to help Alice on her journey.



**Electronic Arts  
The Sims 3**  
\$49.95\*

[www.ea.com](http://www.ea.com)  
Create your very own Sims. Customize their personalities, appearances, and homes and send them out into the world to explore the neighborhood and meet new friends.



**Lego Indiana Jones  
2: The Adventure  
Continues**  
\$29.99\*

[www.lucasarts.com](http://www.lucasarts.com)  
Explore the locations from all four films and build your own levels and environments. Your favorite Indiana Jones characters are depicted in Lego form.

## Home Productivity



**Nuance Dragon  
NaturallySpeaking  
11 Home**  
\$99.99\*

[www.nuance.com](http://www.nuance.com)  
Dictate emails, reports, and documents much faster than you can type by letting Dragon NaturallySpeaking do the typing for you. The software has an accuracy rate of up to 99%.



**HGTV Home  
& Landscape  
Platinum Suite  
Version 3**  
\$49.95\*

[novadevelopment.com](http://novadevelopment.com)  
Plan home improvements or build your dream home with HGTV Home & Landscape. Complete your 3D model in a matter of minutes and then enjoy a virtual walkaround.



**Serif CraftArtist  
Platinum Edition**  
\$59.99\*

[www.serif.com](http://www.serif.com)  
Use your digital photos and CraftArtist Platinum Edition to create stunning projects that make the perfect gifts for friends and family. Tools such as the photo editor, as well as digital scissors and brushes let you personalize your projects.



**Nova Develop-  
ment Family Tree  
Maker Deluxe**  
\$69.95\*

[novadevelopment.com](http://novadevelopment.com)  
Explore and preserve your family history with the software, a free three-month subscription to Ancestry.com, an iPhone app, and more.

## Security/ Utilities



**Kaspersky Lab  
Internet Security  
2011**  
\$79.95\*

[www.kaspersky.com](http://www.kaspersky.com)  
This software includes features to protect you from the latest viruses, spyware, and malware threats for one year and three PCs.



**Kaspersky Lab  
Pure Total  
Security**  
\$89.95\*

[www.kaspersky.com](http://www.kaspersky.com)  
Kaspersky Pure Total Security offers all-in-one protection for your PC. It protects against Internet threats and identity theft and also offers backup, encryption, and clean-up tools.



**Webroot Internet  
Security Complete  
2011**  
\$79.95\*

[www.webroot.com](http://www.webroot.com)  
Internet Security Complete can protect your computer from spyware, viruses, and spam. It also uses advanced technologies to ensure your identity is safe as you shop and browse the Internet. You can also back up digital photos and other files and sync them with a PC.



**Trend Micro  
Titanium Maximum  
Security**  
\$79.95\*

[www.trendmicro.com](http://www.trendmicro.com)  
Trend Micro's Titanium Maximum Security is easy to use and provides a variety of tools that can keep your computer and identity safe.

## System Clean-Up & Repair



**Avanquest  
Fix-It Utilities  
11 Professional**  
\$49.95\*

[www.avanquest.com](http://www.avanquest.com)  
Make your computer run like new. Use Fix-It Utilities 11 to defragment, clean, repair, and optimize your Windows registry to improve overall PC performance and check your system memory, hard drive, and more.



**iolo System  
Mechanic**  
\$49.95\*

[www.iolo.com](http://www.iolo.com)  
With System Mechanic, you can find and fix errors and fragmentation on your PC, clean out clutter, and optimize your system for best performance.



**Acronis True  
Image Home  
2011**  
\$79.98\*

[www.acronis.com](http://www.acronis.com)  
This software backs up your entire computer, including the operating system, files, settings, and more, so you can easily recreate your system in the event of data loss.



**iolo  
DriveScrubber**  
\$29.95\*

[www.iolo.com](http://www.iolo.com)  
When it's time to get rid of your old computer, use DriveScrubber to ensure all of your personal data has been deleted. DriveScrubber will wipe your entire drive, including free space, and restore damaged drives.

## NOTEWORTHY

# Accessories & Services

A computer is a big investment, and now that you've taken the plunge, it's time to decide what accessories you need to go along with that shiny new purchase. We've rounded up several of our favorite extras for every computer owner. Whether you have a laptop or desktop, be sure to add these items to your shopping list to complete your computing experience.



## KEYBOARD

- An ergonomic design can cut down on the wrist strain associated with carpal tunnel syndrome
- Bluetooth connectivity lends itself to a tidy desk because there's one less wire to contend with
- A specialty model, such as a gaming or media keyboard, adds functionality to your pastime of choice



## EXTERNAL HARD DRIVE

- Protect precious video and photo memories: Back up to an external hard drive
- Keep your computer running more efficiently by saving large files, such as your media collection, on an external drive



## CLEANING KIT

- Specially designed cleaners will keep your computer screen clean without running the risk of scratching its surface
- Cloths are often made of low-conductivity material in order to reduce static



## PRINTER

- A quality photo printer will eliminate trips to the drugstore for prints and give you the ability to instantly share your photo memories
- An all-in-one model is the perfect addition for any busy family that needs a device that can operate as a copier, scanner, fax machine, and printer



## USB HUB

- Offers an affordable way to connect all of your peripherals, even if you have more gadgets than USB ports
- Adds the convenience of easy USB access—no more reaching behind your computer to plug in your USB devices



## MOUSE

- A wireless mouse will cut down on cable clutter at your desk and also offers the convenience of portability for laptop use
- A gaming mouse can deliver better accuracy and speed for the ultimate in control
- Consider customizable buttons if you want to be able to access media, files, or programs with one-touch convenience



## SURGE PROTECTOR

- Ensure the electrical current running to your desktop or laptop computer doesn't exceed proper levels
- Portable models will protect your laptop when you're on the go for work or play



## COMPUTING SERVICES

To keep your desktop or laptop computer in tip-top shape, take advantage of the computing services offered at your local CE retailer. They can help you keep your machine running smoothly and free from the dangers that lurk online.

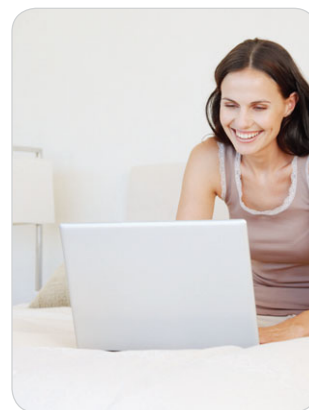
- Computer Setup & Networking
- Virus & Spyware Removal
- Data Backup & Recovery
- Hardware & Software Upgrades
- Training & Consultation



## WEB CAM

- Bridge the gap between long-distance family and friends with online video chatting by adding a Web cam to your setup





# Computing Glossary

Shopping for a computer can be intimidating, especially with all of the complex terminology. Here, we'll explain some common computer jargon.

**Bluetooth**—A short-range wireless standard that connects devices such as computers, printers, headsets, and digital cameras so they can be used together without being connected physically with a cord.

**broadband**—Network connections that transmit high-speed Internet access. Broadband speed varies depending on the provider. Cable companies offer speeds of around 8 to 11Mbps, whereas phone companies offer DSL, which supports speeds of 3 to 5Mbps.

**Ethernet**—A widely used LAN protocol in which computers and networks are physically linked with a cord.

**firewall**—Hardware or software that limits access by a network or another outside source to your computer; it also may limit your computer's access to the network. These security measures are designed to protect your computer from outsiders who'd like to exploit it in some way. By the same token, firewalls may prevent infected files on your computer from accessing the larger

network and spreading the problem to other users.

**HDMI (high-definition multimedia interface)**—An output that some computers offer to transmit uncompressed (and ultimately high-quality) audio and video to a compatible HD display, such as an HDTV.

**LCD (liquid-crystal display)**—This technology sandwiches liquid crystals between thin sheets of glass. The crystals twist and untwist to allow and block light from a backlight, forming the images you see. Initially used mostly in notebook PCs, you'll now find LCDs in TVs and computer monitors, as well as digital cameras, cell phones, portable DVD players, and other devices.

**mobile broadband**—A communication technology, which is also called LTE, WiMAX, 3G, and 4G, that uses cell phone towers to connect devices to the Internet. Generally, you need a service contract, and it's only available in select cities.

**operating system**—The software, such as Windows Vista, Windows 7, or Mac OS X, that controls a computer and its peripherals and serves as the primary interface for users.

**processor**—Also known as a microprocessor or CPU, this integrated circuit controls the computer. Some CPUs

feature two or four processors (called dual- and quad-core processors) on a single die or chassis, speeding up the computer and its ability to multitask.

**RAM (random-access memory)**—A type of memory that's read from and written to by the CPU and hardware.

**streaming**—The act of wirelessly transferring content from one device to another; for example, you can stream personal photos from a computer in the basement to a compatible HDTV in the living room.

**tablet**—Larger than a smartphone but smaller than a laptop, tablets are computing devices that often feature apps. Many have touchscreens that can be manipulated with a finger touch or stylus.

**upgradeable**—The ability to add or swap out hardware to boost a computer's performance or replace a defective or obsolete device or component. For instance, you may add more memory, replace an old CRT with a widescreen LCD, or swap out an older video card for a newer one that features an ATSC TV tuner so you can watch digital TV on your computer.

**WLAN (wireless local-area network)**—A setup that consists of a wireless router and a group of Wi-Fi-enabled devices, such as notebooks and BD players, that communicate wirelessly to share files, media, and other information.

# A Look At Wireless Technologies

## Differences & Benefits

As wireless technology continues to grow in popularity and ubiquity, more and more people are finding uses for it in a variety of applications, from accessing the Internet to talking on their cell phones to printing documents. In the following pages, we'll take a look at several different wireless technologies, products that can use those technologies, and the benefits they offer.



### Wi-Fi

A Wi-Fi hotspot delivers Internet access to a variety of compatible devices, such as laptops, smartphones, tablets, and other mobile devices.

By connecting a wireless router to Internet service, you can set up a private Wi-Fi hotspot. You can also connect to a public Wi-Fi hotspot created by someone else. Any device that has Wi-Fi capabilities can access the wireless network, if it's in range and if the user knows the network password.

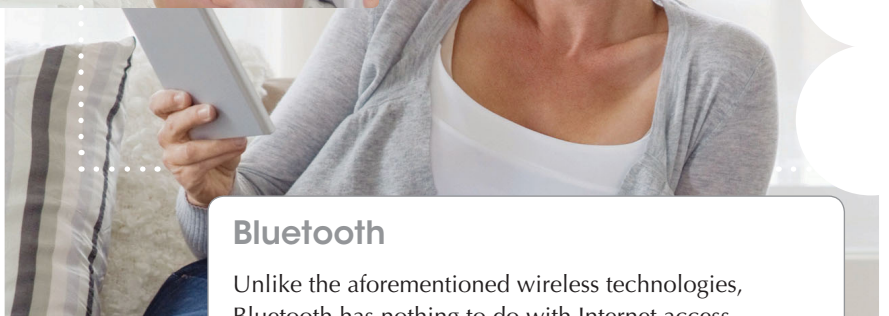
Wi-Fi networks also let you send documents from a Wi-Fi capable device to a network-connected printer. Further, some wireless devices, such as Wi-Fi-equipped digital cameras and digital photo frames, can communicate with other devices on the same network or send and receive information to the Internet. For example, using a Wi-Fi connection, you can stream photos to a digital photo frame from your computer; and some digital cameras let you upload your photos directly to a photo- or video-sharing Web site.

### 3G

3G is a mobile broadband technology that lets you connect to the Internet from a 3G-enabled device, such as a smartphone, laptop, or tablet, although speeds aren't as fast as Wi-Fi. Many other mobile devices have 3G capabilities, as well.

In order to use 3G, you need a data plan and service contract from a mobile service provider. 3G coverage extends to most places where you can get a cell phone signal, although it's not quite as ubiquitous—in other words, there are areas where you can make a call on your cell phone but may not have access to 3G.

Only select laptops, tablets, and smartphones have built-in 3G capabilities. For laptops without 3G, you can insert a dedicated 3G mobile broadband card to get connected. Alternatively, some laptops can “tether” with 3G phones for mobile broadband access.



## 4G

4G, also known as LTE and WiMAX, is the next evolution of mobile broadband. Like 3G, 4G access is handled through a data plan and contract with a mobile service provider. 4G is much faster than 3G, approaching the same speeds you'd experience using Web-enabled devices on your home network.

To date, 4G service coverage is limited to major metropolitan areas, and isn't as widely available as 3G. However, 4G continues to grow as mobile service providers build out their networks to handle increased data traffic.

Also like 3G, 4G capabilities are available on a range of products, including smartphones, tablets, and laptops, as well as through add-ons (depending on the specific device's capabilities).

## Bluetooth

Unlike the aforementioned wireless technologies, Bluetooth has nothing to do with Internet access. Bluetooth is a short-range technology, designed for use by a single user with a particular device or two.

The most pervasive use for Bluetooth is to give you a hands-free way to talk on a cell phone. With a Bluetooth-equipped phone and a Bluetooth earpiece, you can make calls, talk, and hang up without touching your cell phone. It's a boon to anyone who needs to keep both hands on the steering wheel, do household chores, or wrangle children while on a call.

However, it's also used for a wide range of additional devices, such as wireless keyboards, mice, and headphones; exchanging information with digital cameras; printing to a nearby device without the need for a cable; streaming from an MP3 player to a car's stereo deck; and other applications.



# Mobile Broadband

## Internet Access On The Go

Broadband is a term that describes Internet services faster than what you'd receive with an old 56K dial-up modem. Mobile broadband is high-speed Web access that's designed for portable electronics—such as compatible smartphones, tablets, and eReaders—and sold by mobile service providers. Here, we'll discuss what types of mobile broadband are available and how you can receive it.



### 3G & 4G

4G, which is also known as LTE and WiMAX, is the newest speed tier of mobile broadband, and as you may guess, it provides you with the fastest downloads and Web access. The drawback of 4G is that it's only available in select major cities, but it will continue to roll out in new areas. On the flip side, 3G coverage is available nearly everywhere in the United States. 3G's speed is typically fast enough to stream audio, video chat, and download email attachments in minutes. The extra speed of 4G allows for streaming high-quality video and faster Web downloads.

### Embedded vs. Add-On

Most smartphones feature built-in mobile broadband receivers to let you access the Web. Similarly, manufacturers are starting to embed mobile broadband capabilities into notebooks, netbooks, tablets, and eReaders to give you online capabilities anywhere you go. If mobile broadband isn't built into your device's hardware, you might be able to invest in a modem (plugs into a free USB port) or a hotspot (a 3G or 4G device that creates a Wi-Fi network you can join) that will provide convenient Web access wherever you want, as long as you're within a 3G or 4G area.

### Mobile Broadband Providers

In addition to a broadband-capable device, you'll need to sign up with a mobile broadband provider that supports your device. Examine the provider's coverage area to see if it delivers service where you live and the places you travel. You may also want to check out what type of service, such as 3G or 4G, is provided.

# Wireless Routers

## Don't Be Tied Down

A wireless router creates a network so your computer and networkable devices can "talk" to each other over Wi-Fi links and/or cables. It also lets them share an Internet connection.

### The Detached Life

- Crawl into bed with your tablet, then catch up on streaming TV show episodes
- Take your laptop out to the patio so you can access gardening tips while you work
- Move your desktop PC to the basement without losing the ability to stream music to your game console upstairs



### Wireless Router Benefits

A WLAN (wireless local-area network) lets you add wireless gadgets without having to set up a wired connection by stringing an Ethernet cable between the new device and the router. This gives you the freedom to take an Internet-connectable Blu-ray player, game console, or laptop online no matter where it's located in your home.

### Wi-Fi Protocols

Wireless routers communicate with adapters in PCs and other devices. Current gear uses the 802.11n (Wi-Fi N) protocol with theoretical data transfer rates of up to 300 or 450Mbps. For faster throughput, some 802.11n routers use two or three antennas.

Wi-Fi N routers are backward-compatible with adapters that use older, slower protocols such as 802.11g (usually 54Mbps), 802.11b (11Mbps), and 802.11 draft-N. Connecting an older Wi-Fi device to your network may slow it down, unless your router is a dual-band Wi-Fi N model that can maintain a fast 5GHz link to 802.11n adapters while still accommodating the 802.11b/g device.

### Setup

While many routers work as soon as you plug them in, you should enact a few security changes, such as entering a new username and password in its settings menu.

Encryption is also a must. Most routers come with a user-friendly security setup scheme such as Wi-Fi Protected Setup. If yours doesn't, turn on WPA2 (Wireless Protected Access) and type in a passphrase. Next, set each PC or device to automatically connect to the WLAN using the passphrase you set.

# Wireless Printer Technologies

## A Look At Wi-Fi & Bluetooth

With so many wireless devices in our lives, it's helpful to know some work with a wireless printer. There are two wireless technologies used by many standard printers: Wi-Fi and Bluetooth. Below we'll distinguish between the two technologies and explain the benefits you can reap from both types of printers.



### Wi-Fi-Enabled Printers

- There are three options for connecting your Wi-Fi printer to a wireless router: via Ethernet cable, embedded wireless within the printer, or by adding a wireless USB adapter.
- Also called a network-ready printer, a Wi-Fi printer is ideal for your home office because it can wirelessly receive print jobs from compatible devices over a Wi-Fi network. For instance, if both your printer and your tablet are connected to the same Wi-Fi network, you could print documents from any location in your home instead.
- A Wi-Fi printer can print files wirelessly from more than one compatible device. Because the printer can execute print jobs wirelessly, you can put it anywhere in your home.

### Bluetooth-Enabled Printers

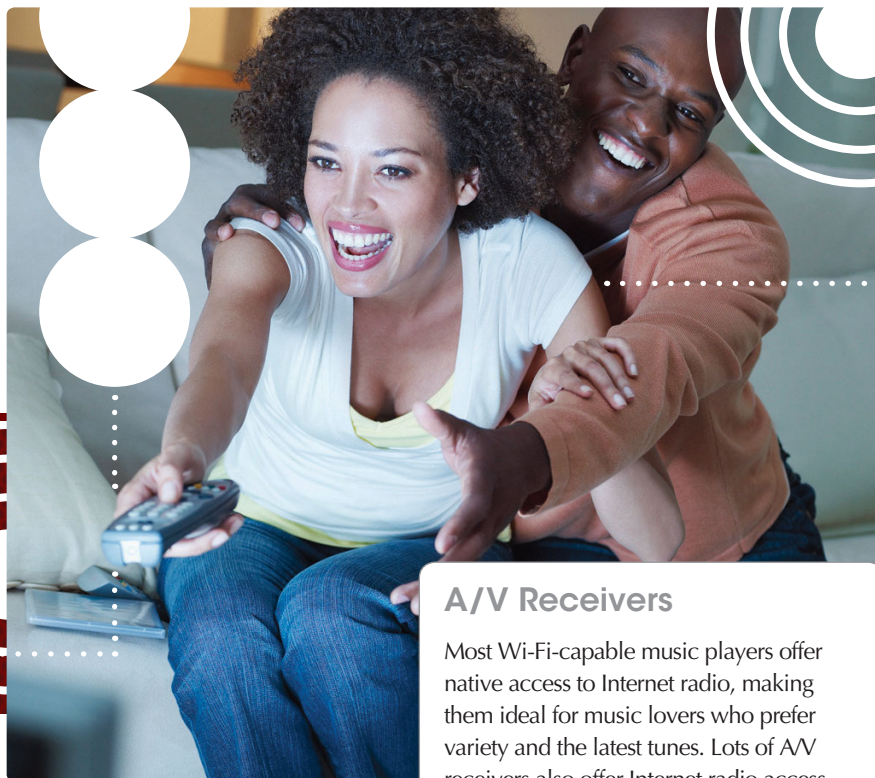
- Some Bluetooth-enabled printers require the addition of a Bluetooth USB adapter, so the printer can wirelessly communicate with other Bluetooth-enabled devices. Other printer models may include built-in Bluetooth connection capabilities.
- When sending print jobs from a compatible Bluetooth device, such as a smartphone or computer, to a Bluetooth printer, both devices need to be within a range of access. Bluetooth devices can only communicate within a short range, generally up to 30 feet.
- Before your printer can communicate with another Bluetooth-enabled device, it must be paired using a "discovery" mode. For example, in order to print from a laptop, you must use its Bluetooth discovery mode so it can search for and connect to your Bluetooth printer.



# Wireless Home Theater

## Give Your Entertainment A Dose Of The Internet

As the center of your entertainment experience, it makes sense to have your home theater connected to your home network, making it easy to access your own images and media as well as the wealth of content available on the Internet. Here's an overview of products that can get you connected wirelessly.



### Set-Top Boxes

If your HDTV does not natively connect to the Internet like smart TVs (see the "HDTV" section), then a Wi-Fi-capable set-top box is a great way to add streaming media to your home theater. There are a variety of devices available; some have onboard storage and act as media servers, some let you record and pause live TV, and others provide access to video services such as Netflix and YouTube and Internet radio services such as Pandora.

### Disc Players

In addition to playing Blu-ray Discs or DVDs, many new players offer some form of Internet connectivity, which opens your home theater to the world of online media and video streaming. To minimize fuss, make sure the Internet-capable disc player you're shopping for supports Wi-Fi in addition to an Ethernet port. Keep in mind, Wi-Fi-ready disc players support wireless connections but may require a compatible wireless adapter to work. Also, to minimize fuss, make sure the Internet-capable disc player you're shopping for supports Wi-Fi; some models rely on an Ethernet cable to get their taste of the Web.

### A/V Receivers

Most Wi-Fi-capable music players offer native access to Internet radio, making them ideal for music lovers who prefer variety and the latest tunes. Lots of A/V receivers also offer Internet radio access, but with the added benefit of a direct connection to your HDTV, some A/V receivers also give you access to streaming video and photo-sharing sites, such as Flickr.

### HDTVs

Smart TVs that support a wireless connection to the Web come in all sizes and with a range of available options. TVs with the works might provide access to services such as Hulu, Netflix, a Web browser, photo-sharing sites, your favorite Web mail provider, home audio and video streaming, Internet radio, and more. Other smart TVs have more limited access to Web content.

# Wireless Audio

## Cable-Free Crescendos

It used to be the sole province of radio stations: the ability to fling music from one device to another through thin air. Today, you can be your own DJ, and audience, with wireless audio devices.



### Whole-Home Wireless Audio

Now that your family has amassed a growing collection of digital music files, why not make it accessible anywhere in your house? A whole-home wireless audio system can transmit songs and audiobooks from a computer to speaker units in your kitchen, next to your exercise bike, or elsewhere. To control what you're playing, systems include a remote.

### Wireless Speakers

If you're hesitant to buy a multichannel sound system for your home theater because you don't want speaker cables running everywhere, look for an HTiB (home theater in a box) that includes wireless speakers. Some wireless speakers are weatherproof so they can be used outside. (Be aware that all wireless speakers need power from batteries or an AC adapter.)

### Docks

Also called MP3 player speakers, docks give you a way to enjoy your player's tunes without headphones. Most also recharge particular MP3 players' batteries. Some docks even come with wireless capabilities, such as the ability to receive your favorite Internet radio stations or streaming song files over a Wi-Fi network.

### Other Devices

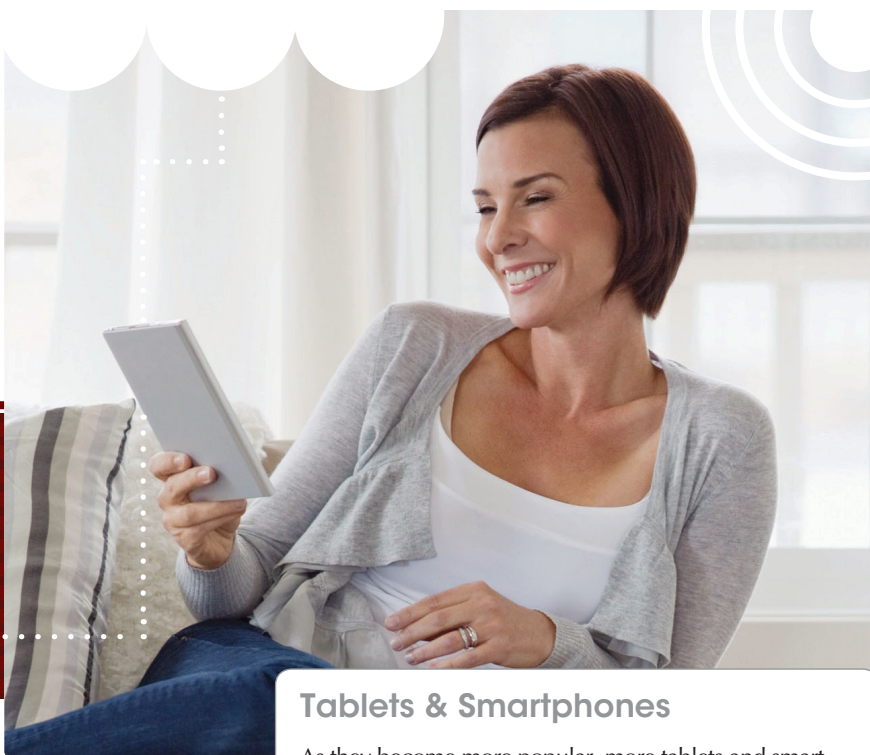
Various gadgets also let you stream music over a wireless link using technology such as DLNA (Digital Living Network Alliance). Game consoles, media extenders, and certain smart TVs are the most prominent examples.

For personal playback, wireless and/or Bluetooth headphones let you experience movies and music at your preferred volume level without disturbing anyone else.

# Portable Wireless Devices

## Stay Connected On The Go

With the right device in hand, you can take full advantage of wireless technology, whether you want to find Internet connections or instantly get the latest weather information. Read on to learn more about the benefits and types of wireless portable devices available.



### GPSES

Some portable GPS devices use Bluetooth, a short-range wireless technology that can connect to Bluetooth-enabled phones. This feature lets you dial phone numbers using the GPS' screen and speak into the GPS' built-in microphone for hands-free phone conversations. This can be helpful for those who need to contact work colleagues as they drive from one business meeting to another.

### Laptops

It's easy to connect your laptop to a wireless network because almost all laptops include built-in Wi-Fi capabilities. This lets you access available Wi-Fi hotspots for Internet or network access. With an add-on 3G/4G card or embedded 3G/4G capabilities, laptops can connect to the Web, so long as they're within a service provider's 3G/4G coverage area. While mobile broadband is more widespread than Wi-Fi, it's only available in select cities and requires a service agreement.

### Tablets & Smartphones

As they become more popular, more tablets and smartphones can connect using at least two wireless technologies. These technologies commonly include Wi-Fi, Bluetooth, and 3G. Multi-wireless devices are especially convenient for travelers who may be able to connect to a free Wi-Fi network at an airport, but need 3G to stay connected to the Web as they move through an area via train, bus, or taxi.

### Weather Stations

A weather station reports information it receives from wireless sensors that you install in indoor and outdoor locations. In addition to temps, some models can monitor conditions such as wind speed, humidity, and rainfall. With a weather station that provides at-a-glance environmental data, you can always be prepared before you step outside.



# Not Just For Headsets

## Other Devices That Use Bluetooth

When most people think of Bluetooth, they picture the wireless headsets many cell phone and smartphone owners use for hands-free calling. Bluetooth, which allows devices to connect wirelessly over short distances, is available in many other common devices, however, including those detailed here.



### Communications

Bluetooth is available in hands-free car kits to enable users to send and receive calls from a paired mobile device while driving. Similarly, a Bluetooth GPS device lets a driver control call duties from a paired device hands-free. A speakerphone, including the kind used in conference rooms for group calls, is another communications-related device in which Bluetooth is included to connect to mobile devices for call-related tasks. And motorcycle helmets that integrate Bluetooth let riders communicate with one another and stream audio from a paired music player or smartphone.

### Audio & Video

Among the many audio and video devices that may include Bluetooth are gaming headsets and controllers that allow gamers to wirelessly communicate, hear audio, receive phone calls, and control gameplay in console and PC games. Some MP3 player docks, A/V receivers, speaker systems, and HDTVs also build in Bluetooth for streaming audio from a compatible MP3 player or smartphone. MP3 players that don't integrate Bluetooth, meanwhile, can use add-on transmitters and receivers to add the functionality. Elsewhere, digital photo frames with integrated Bluetooth let users add photos wirelessly from compatible devices.

### Productivity

When it comes to inputting data, some tablet, smartphone, and notebook users prefer using a traditional keyboard and mouse to a small or virtual keypad and touchpad. A micro USB Bluetooth adapter adds Bluetooth functionality to a PC or notebook that doesn't offer the technology natively. Bluetooth keyboards and mice provide this ability. Various wireless printers, meanwhile, let users bypass using a PC to output prints by integrating Bluetooth to accept print jobs from a compatible Bluetooth device, such as a digital camera or smartphone.

# Gaming Without Wires

## The Freedom To Play

Wireless gaming gives you the freedom to play games without being tied to a console. You can play motion-based games without using a wired controller or, in some cases, without a controller at all. There are even consoles that can connect to a wireless network, giving you Web access and expanded content options. Here are some of the benefits of gaming without wires.



### Wireless Networking

In the past, you would have to run a long Ethernet cable from your modem to your game console or have the console in the same room as your modem in order to access online media or games. Today's game consoles make getting connected simple because they offer built-in Wi-Fi capabilities. By tapping into your wireless home network, you can access the Web no matter where your game console is set up. Additionally, many consoles can stream movies, music, and other content thanks to their wireless network connection.

### Motion-Based Games & Controllers

Motion-based game consoles let you interact with games by waving a controller or by using your whole body. Instead of being tethered to a console via a wired controller, you and your family can play games with the freedom that wireless controllers provide. Motion-based game consoles come with controllers that communicate with your system wirelessly, cameras that track your movements, or a combination of the two. Motion-based gameplay is easy, giving those who don't traditionally game an opportunity to get into the action and compete on a level playing field.

### Traditional Wireless Controllers

Not all game titles are made for motion-based gameplay, but that doesn't mean the gamer in your life can't take advantage of wireless technology. Almost every console on the market has some form of wireless controller available, letting them sit farther away from the game console than a wired controller would allow.



# OnStar FMV

## Safely Connecting You In Ways You Never Thought Possible

Now, with OnStar FMV (For My Vehicle) (professional installation available; [www.bestbuy.com/onstar](http://www.bestbuy.com/onstar)), you can enjoy the security, navigation, and communication benefits of OnStar in virtually any vehicle.\*



### Get Help Anywhere, Anytime

You can use the OnStar emergency button at any time, and in the event of a crash, your OnStar FMV can connect to a live OnStar Advisor, even when you can't respond. Compatible with hundreds of different vehicle makes, models, and years, OnStar is now available through Best Buy with professional installation. Effectively a replacement rear-view mirror, OnStar FMV can now connect to many of the OnStar services.

### Safety & Security

To keep your family safe, the OnStar FMV mirror offers one-touch access to OnStar services via distinguishable buttons. Even if you can't talk, the Emergency Services button gives you a priority connection to get the help you need. Whether you have a medical emergency, need to help others or yourself after a crash, or seek information during a natural disaster, OnStar can provide you with the lifeline you need.

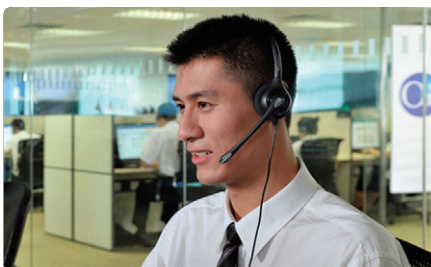
### One Button Simplicity

The many OnStar FMV services listed below are as simple to use as pressing the OnStar button and connecting to a Live OnStar Advisor.

**GPS services.** OnStar FMV uses GPS technology to pinpoint your location and get help to you faster if you've been in a crash or need help changing a flat tire. The same GPS technology is used to help authorities locate your vehicle if it's been stolen.

**Simple navigation.** A Live OnStar Advisor can find directions and download turn-by-turn audio to your car, so you don't have to pull over to enter the address on a screen or phone.

**Hands-free calling.** Easily connect and arrange for vehicle repair, a rental, or a place to stay, even when you don't have a cell phone. Simply purchase minutes and you are able to use this feature.



FirstGlimpse

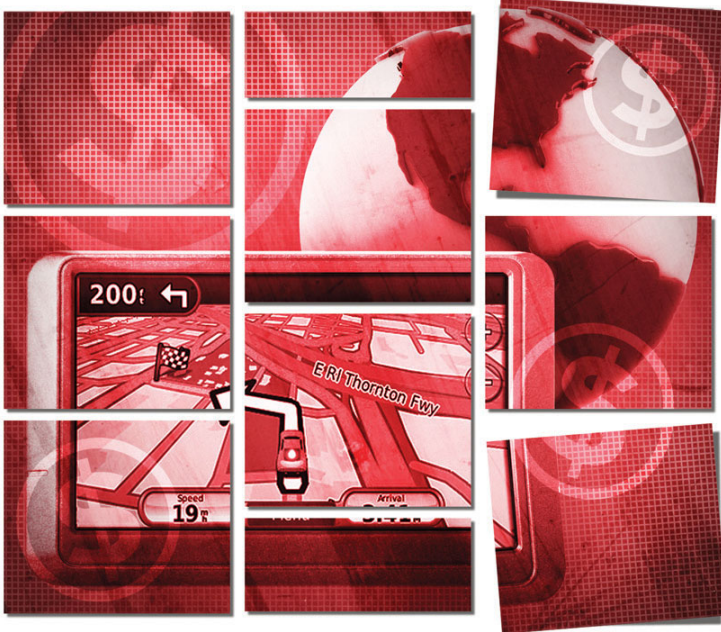
\*See [onstar.com](http://onstar.com) for vehicle compatibility, coverage maps, system limitations and details. In order to use OnStar, a subscription is required.



## HOW TO BUY

## A GPS

## Find Your Way To The Right Model



While you may associate a GPS with a portable in-car unit, GPSes are available in other forms. Consider some of the features and benefits covered here, and you may be surprised to find that an in-dash, outdoor, or fitness model better suits your needs.

**Portable.** Portable GPSes are primarily meant for car navigation, but some models also offer a pedestrian mode to deliver walking directions from point A to point B. A removable windshield or dash mount is often included, so you can easily share the unit among multiple cars. For on-the-go battery power, most models come with a DC adapter to plug into your car's cigarette lighter.

... primarily meant for car navigation, but some models also offer a pedestrian mode ...

**In-dash.** Costing more than a portable GPS, an in-dash unit doubles as a car stereo deck and is seamlessly installed into your car's dash. These GPSes often have a large screen interface and can deliver plenty of entertainment, such as video, HD Radio, satellite radio, MP3 content, and more. Units that include Bluetooth capabilities allow you to make and receive hands-free phone calls.

... an in-dash unit doubles as a car stereo deck ...

**Handheld.** While most GPSes are used to deliver directions, handheld GPSes are designed to work off-road. Whether you're hiking, running, boating, or even playing golf, a handheld GPS model can deliver relevant distance, time, and route information. For example, runners can view running route distances and calculate minute-per-mile paces with a GPS watch, and fishermen can plot the exact locations of their favorite fishing spots with a marine GPS.

... a handheld GPS model can deliver relevant distance, time, and route information.

**Other features.** There are loads of GPS features to consider. Most portable and in-dash GPSes let you search for nearby restaurants, gas stations, and other points of interest while you're on the road. Some models feature turn-by-turn, voice directions and can calculate the shortest route to reach a destination. Because pre-loaded map information is constantly changing, manufacturers offer frequent updates for GPSes, some of which may be free or cost extra.

# Educationally Speaking

## How Portable Digital Devices Benefit Today's Student

Sending a student to school today isn't just a matter of filling a backpack with notepads, pencils, and a shiny new ruler. From grade school to grad school, digital devices have altered the learning landscape by providing numerous educational and entertainment benefits. The following portable digital devices offer examples.



### Headphones

When outfitting today's fashion-conscious students with headphones, appearance is a major consideration. To that end, wired and wireless models come in widely ranging on-ear, in-ear, and over-the-ear varieties featuring various cushions, ear tips, and headbands to reach an ideal fit. Functionally, noise-canceling models make excellent study companions, while earbuds and behind-the-neck headphones are great for exercisers and on-ear models offer solid all-around comfort and performance.

### Speaker Docks

Maximizing every inch of a cramped dorm room is imperative. Speaker docks excel here by outputting rich, strong audio in small sizes. Docks can also recharge an MP3 player's battery; connect to other devices via auxiliary port; and start a student's day via integrated alarm clock. Additionally, portable models (some include rechargeable batteries) can go anywhere, while wireless docks can connect to multiple devices via Wi-Fi or Bluetooth.

### Health & Fitness

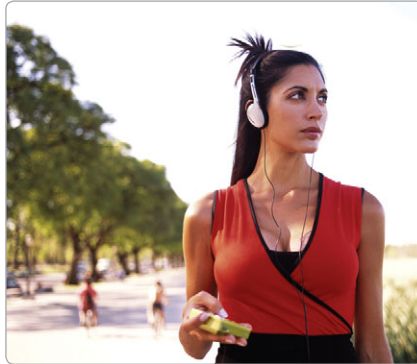
Fit students are better students, and numerous portable devices can offer assistance. A GPS-based watch with a heart rate monitor can measure heart rates, distances, running speeds, and calories burned; track fitness histories; provide training and motivational tools; and more. Personal trainer devices offer similar abilities and Web site integration to track and share progress. Elsewhere, major game consoles offer motion-based controllers to get students off the couch and into action.

### Digital Recorders

Once, primarily only journalists used digital recorders. No longer. Beyond being perfectly sized for backpacks, digital recorders let students store dozens of hours of lectures, speeches, presentations, reminders, and more. Further, many models integrate a speaker and headphone jack to play back recordings and can save audio in an MP3 format. Additionally, integrated USB ports enable easy recording transfers to computers, smartphones, tablets, MP3 players, and other devices.

# Tools To Help You Get Fit

## Gadgets To Maximize Your Workouts



With the right portable fitness gadget, you can monitor your workouts, track your vital signs, and use real-time and historical information to enhance your exercise routines. To keep yourself motivated about improving your health, try adding a fitness watch, monitor, or audio accessory to your regimen.

### GPS Watches & Heart Rate Monitors

A GPS watch can pinpoint your location and altitude using satellites, and it will provide real-time details about your workout. For instance, runners and bikers can keep track of their distance, pace, and calories burned as they move outdoors.

A heart rate monitor averages the number of times your heart beats per minute, which can help you train with varying degrees of difficulty or burn calories more effectively. While you can purchase a heart rate monitor on its own, some GPS watches include a chest strap so you can keep tabs on your heart rate.

### Pedometers

Whether it's a basic step counter or multifeature fitness tracker, a pedometer will report your workout activity in the form of strides taken and calories burned.

Lightweight foot models can be used with a GPS watch, so you can get a more accurate count of your running or walking strides. When you're done training, some pedometers let you wirelessly transmit your activities to a personal fitness Web site so you can share and review your workout history and stats.

### Blood Pressure Monitors

Rather than wait for your next doctor visit, you can measure your blood pressure at any time with a digital blood pressure monitor. Designed for convenience, most at-home blood pressure kits only require you to place a cuff on your arm or wrist, push a button, and view data on a digital display. Certain kits offer profiles for more than one person to use the device and a USB port so data can be uploaded to online fitness sites.

### Audio Solutions

Working out while holding an MP3 player by hand isn't convenient, but you can keep it out of your way by using it with an arm band.

With a pair of waterproof headphones, heavy perspiration won't interfere with your audio experience. What's more, you even can rinse off a waterproof pair when you're done.



## Which Health & Fitness Device Is Right For You?

While they may seem only for athletic types, health and fitness devices can be used by anyone. With one of these gadgets in hand, you can track how many steps you make, miles you travel, calories you burn, and more. By keeping tabs on your fitness activities, you can continue to progress and conquer new goals.

		Design type; Water resistance	Tracked activities	GPS functionality	Heart rate monitor type	Storage capacity; PC connectivity	Battery type; Battery life
	What It Means	How the device is worn; How far underwater the device can go	The different types of fitness data that can be collected by the device	Ability to measure your traveled distance and overall pace	Heart rate can be measured continuously with a chest strap or instantly with a wrist model	Internal data that can be saved; Upload data to your PC to share and analyze	How many hours the device will operate after a single battery charge
	<b>Tanita 3-Axes Activity Monitor</b> MSRP: \$34.99* SKU 1175524	Keychain or neckstrap; N/A	Steps, distance, calories	No	N/A	7-day history; No	CR2032; Not specified
	<b>Omron Pocket Pedometer</b> MSRP: \$59.99* SKU 9639583	Strap, clip, and holder; N/A	Steps, distance	No	N/A	7-day history/41-day memory; Yes, via USB cable	Li-Ion; Not specified
	<b>Fitbit Tracker</b> MSRP: \$99.95* SKU 9594824	Clip, wristband, holster; N/A	Steps, distance, calories, sleep	No	N/A	7-day history (detailed), 30-day history (summarized); Yes, via USB base station	Not specified; 3 days (minimum), 5 to 7 days (typical)
	<b>Sportline Solo 960</b> MSRP: \$99.99* SKU 9522448	Wristwatch; 164 feet	Steps, distance, calories, speed, heart rate	No	Wrist	7-day, 10-week; No	CR2032; Not specified
	<b>Garmin Forerunner 110</b> MSRP: \$199.99* SKU 1159384	Wristwatch; 3.3 feet	Distance, calories, speed, pace	Yes	N/A	1,000 laps; Yes, via charging/USB data clip	Li-Ion; 3 weeks in power save mode and 8 hours in training mode
	<b>Mio Quest</b> MSRP: \$249.99* SKU 1209573	Wristwatch; 66 feet	Distance, calories, speed, heart rate	Yes	Chest strap	60 hours; Yes, via USB cable	Li-Ion; 8 to 10 hours in training mode
	<b>Timex Ironman Global Trainer</b> MSRP: \$360* SKU 1165994	Wristwatch; 164 feet	Distance, calories, speed, pace, heart rate	Yes	Chest strap	1,000 laps; Yes, via USB cable	Li-Ion; 15 hours in GPS mode and 12 days in standby mode
	<b>Garmin Forerunner 405CX</b> MSRP: \$369.99* SKU 9502585	Wristwatch; 3.3 feet	Distance, calories, speed, pace, heart rate	Yes	Chest strap	1,000 laps; Yes, via wireless USB ANT Stick	Li-Ion; 2 weeks in power save mode and 8 hours in training mode

\*Prices listed in this issue are for general reference and may vary from retailer pricing.

## ESSENTIAL THINGS TO KNOW

# MP3 Player Direct Connect Kits

**Q** What is an MP3 player direct connect kit?

**A** A direct connect kit lets you use your factory-installed car stereo with an MP3 player or other audio devices for car speaker audio playback.

**Q** What's the difference between a direct connect kit and an FM transmitter?

**A** A direct connect kit uses a wired connection to transmit audio from your MP3 player to your car audio system, and its audio sounds crisp and clear. Conversely, an FM transmitter uses unoccupied FM radio frequencies, which are susceptible to signal interference and can create poor audio quality.

**Q** How is a direct connect kit set up in a car?

**A** Unlike an FM transmitter, the components of a direct connect kit are hidden from view. A wire harness plugs into the back of your stereo deck and connects to a peripheral device that accepts audio source connections. Using an auxiliary cable, which is included in the kit, your audio device can be hooked up to the system.

**Q** Can I install a direct connect kit without professional assistance?

**A** Unless you know exactly what you're doing, we recommend you let a professional from your local CE retailer install the kit for you. The process involves connecting wires and dismantling your car dash to reach internal areas, and if it's not done correctly, you can cause damage.

**Q** Is any type of direct connect kit compatible with any car make and model?

**A** No, certain direct connect kits are designed for particular vehicle makes and models. Make sure you check a direct connect kit's compatibility before making a purchase or consult an associate at a local CE retailer to determine which kit fits your needs.

**Q** With a direct connect kit, how will I be able to control my audio device's playback?

**A** A direct connect kit gives you flexibility in how you control your audio playback. You can either use your factory-installed system's controls to listen to, control, and view playlists or you can use your MP3 player's functions.

**Q** Will my MP3 player charge while it's connected to a direct connect kit?

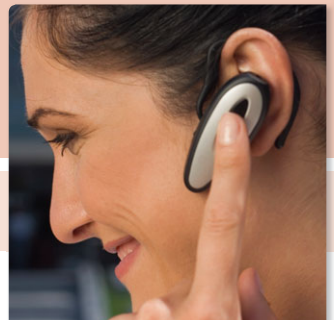
**A** Yes, your MP3 player will charge when it's connected to your car stereo via the direct connect kit.

**Q** Are there direct connect kits that support Bluetooth connectivity?

**A** No. Currently, there are only direct connect kits that utilize wire and cable connections.

**Q** Can I control HD Radio frequencies using a direct connect kit?

**A** Yes. By connecting an HD Radio transmitter to the kit's audio source peripheral, you can browse HD Radio channels using your factory-installed stereo deck.



## Which MP3 Player Is Best For You?

iPods are cool, sure, but you have other choices when it comes to listening to your tunes. This chart compares the most important—and coolest—features from select MP3 players.

		Memory type	Capacity	Video capabilities	FM tuner	Colors	Battery life
	What It Means	Hard drive (moving parts, more capacity) or flash (no moving parts)	How much memory the player has**	Some MP3 players can play video	Some MP3 players let you listen to radio stations	Several players offer a variety of color choices	How long the battery will last when playing music
	<b>SanDisk Sansa Clip+</b> MSRP: \$39.99*; \$49.99*; \$69.99* SKU 9448449	Flash	2GB; 4GB; 8GB	No	Yes	Black, purple, blue	15 hours
	<b>Apple iPod shuffle</b> MSRP: \$49* SKU 9845475	Flash	2GB	No	No	Orange, silver, pink, green, blue	15 hours
	<b>Sony W Series Walkman</b> MSRP: \$49.98* SKU 9964382	Flash	2GB	No	No	Black	11 hours
	<b>SanDisk Sansa Fuze+</b> MSRP: \$79.99*; \$89.99*; \$119.99* SKU 2180714	Flash	4GB; 8GB; 16GB	Yes	Yes	Blue, black, red, purple, white	24 hours
	<b>Sony S Series Walkman</b> MSRP: \$89.98*; \$109.98* SKU 9443827	Flash	8GB; 16GB	Yes	Yes	Black, violet, red	42 hours
	<b>Apple iPod nano</b> MSRP: \$149*; \$179* SKU 1161925	Flash	8GB; 16GB	No	Yes	Pink, orange, green, blue, silver, graphite	24 hours
	<b>Microsoft Zune HD</b> MSRP: \$199.99* SKU 2549583	Flash	32GB	Yes	Yes	Black	33 hours
	<b>Apple iPod touch</b> MSRP: \$229*; \$299*; \$399* SKU 9225377	Flash	8GB; 32GB; 64GB	Yes	No	Black	40 hours

\*Prices listed in this issue are for general reference and may vary from retailer pricing.

\*\*One gigabyte of memory will hold approximately 250 songs. Actual capacity will vary depending on song length and format.



## NOTEWORTHY

# Accessories & Services

No matter where you are going, a wireless device can add enjoyment to your journey. To make sure you are taking full advantage of the capabilities your portable devices offer, check your local CE retailer for accessories that can enhance your mobile experiences. We've listed our favorites below.



### GPS CHARGERS

- Make sure your travel companion always has a full battery
- If you do run out of battery, charge your GPS with an adapter; these can plug into a wall, PC, or car's DC outlet



### MP3 PLAYER CASES

- Protect your MP3 player from bumps and scratches
- Quickly access your player's functions with a clip
- Keep your player out of your way with an armband



### GPS MOUNTS

- Mounts can be placed on a car dash or stuck to a windshield to be within reach



### MP3 PLAYER EARPHONES

- Match earphones to your needs: If you don't want anything bulky, opt for earbuds that fit inside your ear; to hear every musical detail, try headphones that cover the ear completely
- Listen to your music without the interference of background noise with earphones that offer a noise-canceling feature



### CELL PHONE CHARGERS & BATTERIES

- Keep your phone charged no matter where you are; adapters for your cell phone let you use solar power, your car's DC outlet, wall power, or your computer to charge your phone
- Be prepared for emergencies with extra cell phone batteries



### MP3 PLAYER DOCKS & SPEAKERS

- Portable speakers let you play music for a group; some include radios and can also play CDs
- With a portable dock, you can recharge your player's battery as you listen to music
- Play your music through car speakers using an FM transmitter



### CELL PHONE CASES

- Safeguard your phone from wear and tear with a case
- Universal cases fit most sizes of cell phones; some of these will include clips and wrist straps for portability and accessibility
- Fitted cases specifically fit your phone's model type; these can be hard acrylic casings, rubber sleeves, or leather pouches
- Avoid getting scratches and fingerprints on your phone's screen with stick-on or hard, clear screen protectors



### CELL PHONE HEADSETS

- Keep your hands free while still being able to use your phone
- Link compatible cell phones to a Bluetooth headset to make or take calls without a tangled mess of cables
- Use a headset that offers noise-canceling capabilities to ensure you don't miss any of your conversation



### MOBILE SERVICES

- Whether your wireless device is brand-new or nearing the end of its life span, your local CE retailer offers services to help you take care of all of its needs.
- Protection plans for GPSes, MP3 players, and cell phones
  - Phone and battery recycling
  - GPS setup and deck installation
  - MP3 vehicle integration
  - MP3 player setup and training
  - Cell phone repair services and loaner phones

# MP3 Player Glossary

Who doesn't want an MP3 player? It can help you relax, motivate you, and ensure you always have a song to match your mood. When you head to your local CE retailer to snag one, make sure you have this glossary so you can choose the perfect model.

**AAC**—Short for Advanced Audio Codec, this format is a competitor of the more common MP3 file format. It is the default format used by Apple.

**Bluetooth**—A wireless technology, supported by some MP3 players, that connects devices with short-range radio frequencies.

**capacity**—How much data a player can hold. This is typically expressed in gigabytes or megabytes. Generally speaking, 1GB will hold about 250 songs.

**download**—In terms of digital music, downloading is when you retrieve a song from an Internet site or another network connection and save it to your computer or portable music player. You can download songs from music Web sites such as iTunes, Napster, or Rhapsody.

**DRM (digital rights management)**—DRM is a security mechanism for digital media, associated with copyright. A common DRM scheme for digital music involves getting a licensed file to authorize playback of a free or purchased song.

**earbuds**—Small, circular devices you put into your ears so you can listen to music on your player. These serve the same function as headphones. Many music players include their own earbuds, but

you can purchase a separate pair that is more comfortable or of better quality.

**flash memory**—Solid-state memory with no moving parts that is lightweight and small. In terms of digital music players, a flash-based player is lighter and smaller than a hard drive-based player, and also, it won't skip. Thus, flash-based players are popular for use during exercise. However, the capacity of a flash-based player isn't as large as a hard drive-based player.

**FM tuner**—If your music player has a built-in FM tuner, you will be able to listen to music that is broadcast from local radio stations.

**hard drive**—Storage that consists of rigid platters inside a fixed casing. In terms of digital music players, a hard drive-based player is larger and heavier than a flash-based player. Because of the moving parts (the platters), hard drive-based players are also prone to skipping. However, their capacities are much larger than those of flash-based players.

**music management program**—A program, such as iTunes or Napster, that loads onto your computer and lets you play, organize, download, and purchase media, such as music and videos, for your player or PC.



**MP3**—Perhaps the most popular digital audio encoding format. It compresses audio to about one-twelfth the original size while still providing excellent sound. In general, a 1MB MP3 file will last about one minute.

**playlist**—A queue of songs a user creates to play on a computer, burn to a CD, or transfer to an MP3 player. The playlist will only include directions to the location of the songs, not the actual songs themselves.

**podcast**—A downloadable episode that is similar to a radio program. A user can subscribe to a podcast for updated episodes, or she can download podcasts one at a time.

**screen**—The display on the front of a portable music player. A player's screen can either display in color or black and white.

**WMA**—Windows Media Audio is a digital audio format created by Microsoft.

**widescreen**—A screen that has a 16:9 aspect ratio.

## HOW TO BUY

# An Air Purifier

## Fresh Advice For Cleaner Air



Whether it's due to pet dander, dust, pollen, odors, or tobacco smoke, the air in your home may not be as clean as you'd like it to be. And if someone in your household suffers from allergies, particles in the air can be more than a slight annoyance. To clear the air, you need an air purifier. Here are some points to consider while you shop for one.

**Room size rating.** The specifications of an air purifier will indicate the size of room it should be used in. Some manufacturers list a CADR (clean air delivery rate), which indicates the volume of filtered air the purifier delivers as determined by AHAM (Association of Home Appliance Manufacturers). AHAM recommends choosing a unit with a CADR that's at least two-thirds of a room's area. If you plan to use the purifier in several rooms, you should choose a portable unit that's rated for the largest room.

**Purification techniques.** Air purifiers use a variety of methods to clean the air. The most common is a

HEPA (high efficiency particulate air) filter, which blocks, at a minimum, 99.97% of particles with a diameter as small as 0.3 microns. Some units use replaceable HEPA filters, and others use a single filter that can be cleaned and reused. Other air purifier units ionize particles

in the air. This slightly charges particles in the air, which causes them to adhere to the purifier when they're pulled in via a built-in fan. Some air purifiers use a combination of these methods, and select units add a UV light to destroy microbes.

Other air purifier units ionize particles in the air. This slightly charges particles, which causes them to adhere to the purifier . . .

**Power considerations.** The most efficient air purifiers will bear the Energy Star label. Some also include timers, so they won't run longer than necessary. Fan noise should also be taken into consideration. Units

with several fan speeds can be turned down when you need them to be quieter, and using the lower fan settings will reduce energy use.

The most efficient air purifiers will bear the Energy Star label.

BY TARA SIMMONS BANTAM



## ESSENTIAL THINGS TO KNOW

# Energy Star Savings

## Q What is Energy Star?

A It's a joint program of the Environmental Protection Agency and the Department of Energy to promote energy-efficient products and practices. Its Web site is [www.energystar.gov](http://www.energystar.gov).

## Q What does "energy-efficient" mean?

A An appliance that is more efficient than another uses less energy to do a given amount of work, such as to dehumidify a room or wash your clothes.

## Q What are the benefits of energy-efficient products?

A Energy Star appliances can lower your utility bills, such as electricity, gas, and/or water. Reduced energy usage also correlates to lower carbon emissions from electricity generation.

## Q How much can an Energy Star appliance save on my utility bills?

A Energy Star says that you could realize up to a 30% savings in energy costs over a less efficient device.

## Q Can I get a rebate for buying an Energy Star appliance?

A Depending on your state, certain appliance purchases may qualify you for an Approved Energy Efficient Appliance Rebate Program through the Department of Energy.

## Q How does Energy Star select products?

A The organization tests items according to periodically updated energy consumption specifications. Products also have to provide the performance and features of main-stream models in their categories.

## Q What other criteria must products meet in order to qualify?

A They must be numerous enough as a category for their energy savings to benefit the whole country, and their efficiency technologies must be non-proprietary.

## Q Does Energy Star take pricing into consideration, too?

A Yes. If an energy-efficient product costs more, its reduced energy cost has to be enough to "pay for itself" in a reasonable amount of time.

## Q Aside from appliances, are there other types of products that the Energy Star program covers?

A Yes. Energy Star recognizes product categories, such as business office equipment, lighting products, and consumer electronics.

## Q What types of appliances may be Energy Star certified?

A You can find room air cleaners/purifiers, window air conditioners, standalone dehumidifiers, dishwashers, freezers, refrigerators, washers, and even water coolers with Energy Star logos.



## NOTEWORTHY

# Accessories & Services

After you've selected an appliance, you need to make sure you have all of the necessary extras, such as cords or hoses for installation. It's also good to consider if you want a professional to deliver and install your unit. By adding the accessories below, you can ensure your appliance's performance remains top-notch.



## VACUUM BELTS, BAGS & FILTERS

- Replace vacuum belts every year for optimum performance
- Trap airborne pollutants, such as dust particles and debris, with micro allergen or HEPA filter vacuum bags and filters



## HIGH-EFFICIENCY LAUNDRY DETERGENT

- Wash clothes better with a detergent that's formulated to work with a high-efficiency washer
- HE detergent prevents damage to your washer, such as leaking, vibration, and poor spinning



## GAS FLEX LINES

- **Ranges and laundry dryers.** Gas lines aren't included with these appliances, so you'll need to pick one up
- With an auto shutoff feature, you can protect your home from gas leaks
- Professional installers require a new gas line



## UPHOLSTERY & FLOOR CLEANING AGENTS

- Make cleaning easy with products made for particular surfaces, such as multifloor, wood floors, carpet, and upholstery
- Some agents can be used with a variety of products, but others are for use only with specific products



## LAUNDRY PEDESTALS

- Raise your front-loading washer and dryer to an easy-to-access and more ergonomic height
- Store laundry supplies in pedestals that double as drawers



## REFRIGERATOR BULBS & FILTERS

- Keep a spare bulb on hand to replace burnt-out interior lights
- Ensure your dispensed water and ice always taste fresh with extra water filters



## ELECTRICAL CORDS

Power cords aren't included with these appliances. Here's what you should know:

- **Washers and dryers.** All new models use 4-prong cords, but models made before 1984 require a 3-prong cord replacement.
- **Dishwashers.** Purchase a three-prong cord individually or in a kit that includes a water line.
- **Ranges.** Check your home's electrical outlet to get either a 3-prong or 4-prong cord.



## WATER LINES

- **Refrigerators.** Some models include plastic water lines, which are susceptible to twisting or leaks. A better alternative is a line made of metal, such as copper or stainless steel.
- **Washing machines.** Don't settle for the rubber hose that comes with your machine, as it can burst. Instead, opt for a durable stainless steel hose that will last longer.
- **Dishwashers.** Reusing an old water line can lead to water damage. Instead, get a dishwasher kit that includes a water line and power cord for the best performance.



## APPLIANCES SERVICES

Whether you're buying a new unit or need to tune up your existing one, CE retailers offer professional services like the ones below to help get your appliance up and running in no time.

- Delivery & Installation
- Appliance Recycling
- Appliance Service Plans
- Appliance Repairs

# Get The Most Out Of Your Gaming

## Trade-Ins, Pre-Orders & More



Whether you consider games an entertaining way to pass the time or as vital to your existence as eating and breathing, Best Buy offers solutions so you can get games for less than you thought; use your existing library to fund a new one; obtain the next hot title the day it launches; and access exclusive in-game maps, weapons, and more with downloadable content. Here's a look at some of the ways in which Best Buy wants to help you expand your gaming experience.

**Pre-orders.** Ideal for gift-givers and franchise fanatics alike, pre-ordering games at Best Buy or Bestbuy.com means that there's no need to stand in line and there's no such thing as a sold-out title. Pre-orders also get guaranteed access to limited editions, all the best exclusives, and other offers.

**New titles.** You probably already knew Best Buy offered a wide selection of new games, strategy guides, accessories, and more. But you may not have known that as a member of Best Buy's Reward Zone Gamer's Club, you can get point bonuses just for buying the games you love, which helps you earn Best Buy gift cards to further fund your fun.

### Pre-owned titles.

Purchasing a gently pre-played game lets you enjoy the game as much as someone who purchased the game new, but at a significant cost difference.

### Downloadable content.

In addition to buying new and used games at Best Buy, you can also talk to a sales associate to purchase DLC (downloadable content), which includes game expansions and add-ons for titles you just bought or currently own.

**Trade-ins.** When you're finished with your games, Best Buy lets you turn around and sell those games back for gift cards that are good storewide and online. It's a great way to bring down the price of new games, and you'll be doing your fellow cash-strapped gamer a favor by giving him the opportunity to buy your game at a pre-owned price.



# This Month's Blu-ray Disc Releases

## Children of Men

Rating: R | MSRP\*: \$14.99 | SKU: 19290673

Release Date: 7/10



## Rango

Rating: PG | MSRP\*: \$24.99 | SKU: 2834243

Release Date: 7/15



## Up

Rating: PG | MSRP\*: \$29.99 | SKU: 2589001

Release Date: 7/5



	Date	MSRP*	SKU	Rating
<b>July</b>				
13 Assassins	7/5	\$24.99	2901479	R
A Guy Thing	7/5	\$14.99	19248908	PG-13
Amélie	7/19	\$14.99	2902128	R
Apollo 13	7/10	\$14.99	19290285	PG
Army of Darkness	7/10	\$14.99	19290655	R
Backdraft	7/10	\$14.99	19290691	R
Bourne Identity	7/10	\$14.99	19290294	PG-13
Bourne Supremacy	7/10	\$14.99	19290319	PG-13
Bridget Jones's Diary	7/19	\$14.99	2902085	R
Carlito's Way	7/12	\$14.99	2833723	R
Children Of Men	7/10	\$14.99	19290673	R
Chocolat	7/19	\$14.99	2902119	PG-13
Dante's Peak	7/26	\$14.99	2871219	PG-13
Dawn of the Dead (2004)	7/12	\$9.99	2833732	R
Donnie Darko	7/26	\$19.99	19278948	R
End Of Days	7/10	\$14.99	19290719	R
Flash Gordon (1980)	7/10	\$14.99	19290424	PG
Greece: Secrets of the Past	7/5	\$19.99	19258932	Not Rated
Honeymoon In Vegas	7/5	\$12.99	19248999	PG-13
Inglorious Basterds	7/10	\$14.99	19290682	R
Inside Man	7/12	\$9.99	2833226	R
Ironclad	7/26	\$24.99	2901165	R
King Kong	7/10	\$14.99	19290346	Not Rated
Life During Wartime	7/26	\$34.99	19259012	R
Miral	7/12	\$34.99	19255431	PG-13
National Lampoon's Animal House	7/26	\$19.99	2871158	R
Out of Africa	7/12	\$14.99	2833632	PG
Overboard	7/5	\$12.99	19248953	PG
Public Enemies	7/12	\$14.99	2833623	R
Rango	7/15	\$24.99	2834243	PG
Ratatouille	7/5	\$29.99	2589065	G
Red Planet	7/26	\$14.99	19219398	PG-13
Robin Hood	7/10	\$14.99	19290433	NR
Smokin' Aces	7/12	\$14.99	2833696	R
Soldier	7/26	\$14.99	19219449	R
Stargate Atlantis: Complete Series Gift Set	7/26	\$179.99	19248113	Not Rated
The 40-Year-Old Virgin	7/12	\$14.99	2833387	Not Rated
The Blues Brothers	7/26	\$19.99	2871088	Not Rated
The Bourne Ultimatum	7/10	\$14.99	19290328	PG-13
The Boy in the Striped Pajamas	7/19	\$14.99	2902094	PG-13
The Cutting Edge	7/5	\$12.99	19249015	PG
The Incredible Hulk	7/10	\$14.99	19290337	PG-13
The Jackal	7/10	\$14.99	19290415	R
The Mummy Returns	7/10	\$14.99	19290355	PG-13
The Mummy: Tomb of the Dragon Emperor	7/10	\$14.99	19290364	PG-13
The Scorpion King 2: Rise of a Warrior	7/10	\$14.99	19290594	PG-13
Up	7/5	\$29.99	2589001	PG
WALL-E	7/5	\$29.99	2589047	G

\*Prices listed in this issue are for general reference and may vary from retailer pricing.

# ESRB Game Ratings & Descriptions

## Find Material That's Appropriate For Your Kids

### ESRB (Entertainment Software Rating Board) Ratings

In order for parents to select gaming software appropriate for their children, ESRB ([www.esrb.org](http://www.esrb.org)) ratings are listed on the front and back of most game packages to provide concise and impartial details about a title's content.



#### Early Childhood.

Titles with this rating have content that may be suitable for children ages 3 and older. These software titles contain no material that parents would find inappropriate.



**Teen.** Titles with this rating have content that may be suitable for children ages 13 and older.

Titles in this category may contain violence, suggestive themes, crude humor, minimal blood, simulated gambling, or infrequent use of strong language.



**Everyone.** Titles with this rating have content that may be suitable for children ages 6

and older. Games in this category may contain minimal cartoon, fantasy, or mild violence and infrequent use of mild language.



**Mature.** Titles with this rating have content that may be suitable for persons ages 17

and older. Games in this category may contain intense violence, blood and gore, sexual content, or strong language.



**Everyone 10+.** Titles with this rating have content that may be suitable for children ages 10 and

older. Games in this category may contain more cartoon, fantasy, or mild violence and language as well as minimal suggestive themes.



#### Adults Only.

Titles with this rating have content that is only suitable for persons 18 years and older. Games in this category may include prolonged scenes of intense violence, graphic sexual content, or nudity.

For additional information, ESRB ratings on the back of game packages include content descriptions and depictions.



### GAMING TIPS FOR PARENTS

Aside from checking a game's ESRB rating, there are other ways you can ensure the games your youngsters are playing are age-appropriate.

- Carefully look at everything on a title's packaging, including the game graphics.
- Find game reviews, screen shots, or demos to get a better idea of a game's content.
- If available, use the game's parental controls to restrict inappropriate content.
- Learn about games by talking to other parents and older children who are familiar with or have played certain titles.
- Participate in your children's gaming and discuss their games as much as possible.
- Be aware of nonrated ESRB material a game may contain. "Mods" are program downloads that can alter a game's content, and online games often have live player chats as well as other user-generated content.

## Which Game System Is Best For You?

Game consoles and portable devices are no longer limited to gameplay. They can also access the Internet, download media, and play your favorite DVDs or CDs. To help you find a game device that will suit you best, here's a comparison of the most popular selections you can find at your local CE retailer.

		Storage space	Compatible memory cards	Optical drive	Video resolution output	Ports	
	What It Means	How much data the system can hold	Cards that will let you save and offload data, such as game saves or personal media	Aside from game discs, other playable media formats	Highest number of video pixels that is sent to a TV or portable console screen	Hookups for controllers as well as video and audio outputs	
Console Devices		<b>Sony PlayStation 3 With PlayStation Move</b> MSRP: \$399.99* SKU 1122275	320GB	PlayStation and PlayStation 2 cards with optional USB memory card adapter	CD, DVD, BD	1,920 x 1,080	1 A/V, 1 Ethernet, 1 HDMI, 1 optical digital audio, 2 USB
		<b>Nintendo Wii</b> MSRP: \$199.99* SKU 9916446	512MB	SD/Nintendo GameCube Memory Card	Can only play game titles	720 x 480	4 controller, 1 A/V Multi Out, 2 USB
		<b>Microsoft Xbox 360 4GB Console With Kinect</b> MSRP: \$299.99* SKU 1162439	4GB	USB flash drive	CD, DVD	1,920 x 1,080	1 optical audio out, 1 Ethernet, 1 HDMI, 5 USB, Kinect port
Portable Devices		<b>Nintendo 3DS</b> MSRP: \$249.99* SKU 1824267	N/A	SD	None	Upper: 800 x 240 (3D) Lower: 320 x 240	1 headphone
		<b>Nintendo DSi</b> MSRP: \$149.99* SKU 9249725	256MB	SD	None	Dual 256 x 192	1 headphone, 1 microphone
		<b>Nintendo DSi XL</b> MSRP: \$169.99* SKU 9760166	256MB	SD	None	Dual 256 x 192	1 headphone, 1 microphone
		<b>Sony PSPgo</b> MSRP: \$199.99* SKU 9459631	16GB	Memory Stick Micro	None; download to internal and removable memory only	480 x 272	1 USB, 1 headphone
		<b>Sony PlayStation Portable 3000</b> MSRP: \$129.99* SKU 9175082	64MB	Memory Stick Duo	UMD (Universal Media Disc)	480 x 272	1 video out/headset, 1 USB, 1 DC out

\*Prices listed in this issue are for general reference and may vary from retailer pricing.



## GAMING, MEDIA & MORE

	Online community	Wi-Fi access; Media streaming	Parental controls	Compatible game formats	Included accessories & services	Available accessories	Controllers	Perfect for
	Web site membership for downloads, upgrades, and more	Access the Internet without a cable hookup; send and receive media wirelessly	Helps parents decide what content their kids can or cannot access	Game titles that can be played on the game system	Accessories included with the console	Extras that can help enhance your gameplay	Included controllers; wired/wireless controller compatibility	Who can benefit from the special features the gaming system offers
	Yes, free PlayStation Network membership	Yes, 802.11b/g; Yes—Netflix and content from your home network	Options available for games, BDs, DVDs, and Internet access	Sony PlayStation 3 titles and select PlayStation titles	DualShock 3 wireless controller, Move motion controller, Eye Camera, USB cable, PlayStation Network membership, A/V cable	Move Navigation controller, Blu-ray remote, Bluetooth headset, memory card adapter, wireless keypad, cables	Includes 1 DualShock 3 wireless controller; wireless	Someone who wants the value of a full gaming system with a BD player and media streaming
	Nintendo Wi-Fi Connection	Yes, 802.11b/g; Yes—Netflix	Options available for games, online features and downloads, and more	Nintendo GameCube and Wii titles	Wii remote and nunchuck, sensor bar, Wii Sports game, console stand, A/V cable, adapter	Wireless Wii remote, wheel, classic (wired) controllers, wireless sensor bar	Includes 1 wireless Wii remote and nunchuck; both (some titles require a wired remote)	Gamers of any age who want a unique wireless gaming experience that requires little gaming knowledge
	Xbox LIVE	Yes, 802.11n; Yes—Netflix and content from your home network	Options available for games, Xbox LIVE, console play time, and a Family Settings pass code	Xbox 360 supports backward compatibility of the original Xbox, Xbox 360, and Xbox LIVE Arcade titles	Kinect Sensor, wireless controller, Kinect Adventures game, A/V cable, free one-month trial to Xbox LIVE Gold	HDMI cable, USB flash drive, Xbox LIVE headset, Play & Charge Kit	Includes 1 wireless controller; wireless	Those who want an Xbox console with a Kinect Sensor to play games only with body movement, built-in wireless capabilities, and more
	Nintendo Wi-Fi Connection	Yes; Yes	Options available for games, specific wireless connectivity, 3D functionality, and more	Nintendo 3DS titles and nearly all Nintendo DSi and Nintendo DS titles	Charging cradle, AC adapter, stylus, 2GB SD card, 6 AR cards	Cases, adapters, screen shields	N/A	Users who want a handheld game system that supports 3D games
	Nintendo Wi-Fi Connection	Yes; Yes	Options available for Nintendo DSi content	Nintendo DSi and Nintendo DS titles	AC adapter, 2 styli	Audio headset, battery power pack, screen protectors, carrying cases, styli	N/A	Users who want a handheld gaming system that lets them take, personalize, and share photos
	Nintendo Wi-Fi Connection	Yes; Yes	Options available for DSi software, DSi Browser, DSi Shop, and more	N/A	Rechargeable battery, AC adapter, stylus, and 4 preinstalled titles	Cases, adapters, headphones, full-sized stylus	N/A	Those who want a handheld gaming system better-suited for social gaming with a large screen
	Yes, PlayStation Network	Yes, 802.11b; Yes	Included	Available for download from PlayStation store	AC adapter, USB cable	Protective screen film, cradle, headphones, memory cards, cases	N/A	Those who need a bigger screen for their gaming, Internet, and media entertainment
	Yes, free PlayStation Network membership	Yes, 802.11b; No	Options available for UMDs, Internet, and video downloads	PlayStation Portable titles	AC adapter, battery pack	Battery charger, travel case, memory cards, A/V cable, AC adapter, car adapter	N/A	Those who want to enjoy gaming as well as movies, photos, and music when they're on the go

## NOTEWORTHY

# Accessories & Services

The gaming experience goes beyond the game itself—you need the right console peripherals and the best just-in-case services. We've compiled a list of some of the must-have accessories that will only enhance your gameplay, so be sure to remember these items on the next trip to your local CE retailer.



## RACING WHEELS

- A gaming steering wheel puts you in the driver's seat of a virtual race
- A comfortable, accurate wheel will give you more control with turns, braking, and acceleration
- Be sure to purchase a racing wheel that's compatible with your specific game console



## USB DEVICES

- A USB media hub will let you connect other USB devices (including MP3 players and portable game devices) to your game console
- Use a USB rechargeable battery pack to charge the Li-Ion battery for guitar controllers



## EXTERNAL MEMORY

- External hard drives, USB drives, or memory cards back up your in-progress games
- When additional memory is connected to live (online) games, you can save gaming content and downloads
- The more memory you have, the more games and downloads you'll be able to store



## WIRELESS CONTROLLER

- Bluetooth technology lets you play while also having the freedom to move around
- Some controllers use traditional AAA batteries to sustain your playing time
- Find the best design for your grip: ergonomic or traditional



## GAMING KEYBOARD

- Adding a keyboard can help game efficiency—type in text codes and chat with other players quickly
- Look for a model with a touchpad so you can easily scroll around the game display
- Models that offer hotkeys will enable you to quickly perform tasks, such as gameplay actions



## MUSIC CONTROLLER ACCESSORIES

- Add a heavy-duty bass pedal to your gaming drum set to replace your standard pedal
- A tripod microphone stand will make your song-based games more true to life
- Extra cymbals for your rock drum kit will give you more freedom to express musical ability



## HEADSETS

- Use a hands-free headset to enhance your gaming experience by planning strategies aloud with your team
- A Bluetooth 2.0 headset is designed to communicate with your game console; Bluetooth headsets will be compatible with most game consoles
- Consider noise-canceling headsets with echo-minimizing microphones so you can hear and be heard clearly



## GAMING SERVICES

Your local CE retailer provides some helpful services, both in-home and in-store, to enhance your game console. Specifically, the professionals can set up online connections, install system updates, and transfer data to a game storage device.

- Configure online accounts
- Console system updates
- Stream media from a PC to a game console
- Connect a console to a home-theater system

IN THIS SECTION, YOU'LL FIND PRODUCTS AND SERVICES that are suitable for businesses of all sizes. From digital signage that can hold up to prolonged hours of use in a small mom-and-pop store to powerful servers that can support a corporation's network of hundreds of workers, these pages offer a wide range of solutions for professional needs. No matter your size of business, *First Glimpse's* Built For Business section helps you discover the latest innovative technologies available in-store and online, so you can use them to grow success.

**BUILT  
FOR  
BUSINESS**

## From The Smallest Offices ...



## ... To The Largest Enterprises

### Solutions That Cover ...

Not everything a business needs can be found on a store shelf. Depending on the size and demands of your company, you may need to seek solutions through other avenues. Take, for example, Best Buy and its business support.

To help you match the technology and services that fit your company, no matter its size, industry, or obstacles, Best Buy offers consultations with its business experts in stores, online, on the phone, and at your location.

... discover the latest innovative technologies available in-store and online ...

### ... The Full Business Scope





# Why You Should Invest In Business-Grade Products

## Buy For Your Business' Future

Sometimes the differences are subtle, but products intended for the typical consumer and those designed for business use are often not the same. In addition to slightly different feature sets than consumer-grade products, business products offer companies opportunities to save money, improve efficiency, and take advantage of deals that are unique to businesses.

### A Smart Purchase

Do business-grade products cost more? Up front, they usually do. However, springing for the right tool for the job pays dividends, financial and otherwise, down the line.

Business-grade products often have enhanced features and specifications, leading to better performance (which enhances employee productivity) and a greater length of time before a given piece of hardware needs to be replaced. For example, a laptop with a powerful processor and a sizable and fast hard drive may be expensive, but it will perform better than a smaller, underpowered laptop, and its top-of-the-line features mean that it won't become obsolete as quickly.

### Support & Warranties

Many business-grade products are deployed in a workplace as part of a package. For example, if your office has five employees, you may be able to buy software with five licenses—a money-saver on its own—but that group package sometimes also comes with a support contract with the manufacturer as well as extended warranties.

### Advanced Features For Business Use

Many products designed for businesses have specific features that are germane to business applications and aren't necessarily ideal or required for home use. For example, an all-in-one printer that has fax, copy, and scan capabilities is a must-have for a business, whereas most home users might be able to do without some of these features.

Additionally, software is often designed with differing levels of need in mind. Many applications and productivity suites are available in "business" or "enterprise" versions, which offer features that cater to business needs but would be impractical for a general user.



# Efficient & Powerful Telephony

## SynJ® Corded/Cordless Small Business System From AT&T

If you own a small business, you need your telephony solution to be as nimble, flexible, and powerful as possible, especially if you have employees working in multiple areas of your building or complex, such as an upstairs office and a downstairs warehouse. The SynJ four-line corded/cordless Small Business System from AT&T ([www.telephones.att.com/smb](http://www.telephones.att.com/smb)) offers all the features you need coupled with incredible range and flexibility.



**SynJ SB67138**  
Cordless Deskset With  
One Cordless Handset  
MSRP: \$379.95  
SKU: N/A



**SynJ SB67148**  
Cordless Deskset  
MSRP: \$129.95  
SKU: 1879171



**SynJ SB67128**  
Accessory Repeater  
MSRP: \$99.95  
SKU: 9399858



**SynJ SB67108**  
Cordless Handset  
MSRP: \$99.95  
SKU: 9399867



**SynJ TL7600**  
Cordless Headset  
MSRP: \$99.95  
SKU: 9571849

### The System

The SynJ phone system supports up to four lines and consists of a corded base, up to 10 accessory handsets or cordless desksets, and up to six range-extending repeaters. You can also pair a cordless headset to the corded base.

SynJ cordless technology gives users the freedom to communicate with customers and co-workers without the need for expensive cabling to every area they work. And, because the cordless deskset has a corded receiver, it feels just like a traditional corded phone.

### The Features

With Push-To-Talk Intercom capabilities, employees can quickly reach one another using the cordless desksets and handsets, reducing the amount of time spent on internal business communication. Users can make three-way conference calls, and the base, cordless desksets, and handsets all have individual voicemail.

All phones feature line status, message-waiting indication, caller ID, and call waiting on the lighted displays, and each has speakerphone capabilities.

### No Interference

While many cordless telephone solutions suffer from interference caused by nearby wireless devices, such as microwaves or walkie-talkies, the SynJ system does not. Rather than operate on the crowded 2.4GHz and 5.8GHz wireless bands, these devices use DECT 6.0, a technology dedicated to cordless phones that eliminates interference and enhances range.

In fact, each SynJ system component has a range of almost 1,000 feet. If you add repeaters to the SynJ setup, the range expands up to a half mile in one direction.

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**FirstGlimpse**



## ESSENTIAL THINGS TO KNOW

# Cloud Computing

### Q What is cloud computing?

A The cloud is a virtual network of services that you can access over an Internet connection. The services are available on-demand, so you use them whenever your company needs them.

### Q How is it different from traditional computing?

A Unlike an application or piece of data that's stored on a local computer or server, the functions of the cloud are run on and stored by the cloud hosting service.

### Q What types of computing applications and tasks can run in the cloud?

A Pretty much any type of computing activity can be provided via the cloud. Common services include data backup and storage, server capabilities, running applications, and security.

### Q What are the financial benefits of cloud computing?

A Similar to utility usage, cloud computing only requires you to pay for what you use. In a traditional environment, you'd need to pay for the software and maintain equipment to meet your peak demand, which can be wasteful when the servers and other resources sit unused.

### Q Can cloud computing help my IT employees be more productive?

A The IT staff will be free to work on other mission-critical tasks on the job, because they have fewer server maintenance duties to perform.

### Q What is SaaS?

A Short for software as a service, this type of cloud computing delivers an application to your business. With SaaS, you also won't need to worry about managing licenses, computer compatibility, and keeping the software patched.

### Q What is PaaS?

A PaaS (platform as a service) provides a computing environment for the cloud services to run on. It's ideal for companies that want to create and develop applications in the cloud, because developers don't need to worry about the existing infrastructure and computing power.

### Q What is utility computing?

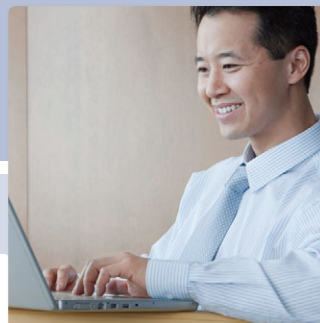
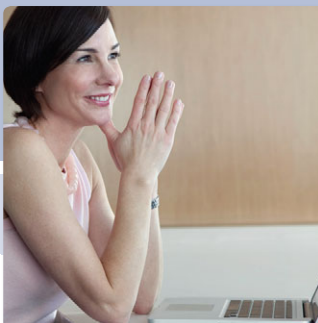
A It's access to IT resources, such as memory and processing capabilities, that's available on demand. Utility computing is ideal for businesses that occasionally need extra computer resources to get jobs done.

### Q What's the difference between a public cloud and private cloud?

A Public cloud computing completely connects to a third-party hosting service, and everything is managed by the provider. A private cloud runs on hardware owned by a business, and the information is protected by a firewall. Everything in a private cloud is controlled by the business.

### Q Do cloud providers have service-level agreements that guarantee a level of connectivity to the cloud?

A Yes, they will pay for any downtime that does occur, assuming that it's stipulated in the agreement. You can also negotiate quality-of-service parameters to meet expected levels of usage.







# GPS Tracking & Safety Devices

In the adventures of life, we sometimes need some guidance to get back on course. Whether you can't remember where you parked the car or are off the beaten path trying to retrace your steps back to a campsite, tracking and safety GPS devices can provide the information you need.

## How They Work

No matter the type of GPS you use, the device uses a network of satellites to retrieve location-based information. The exact location of a GPS device can be determined when it locks on to at least three satellites using triangulation. While many of us use an in-car GPS to get directions and point-of-interest information, tracking and safety GPS devices are meant for different purposes. These

GPS devices can mark specific points (waypoints) or monitor the movement of a person or object. And because they're often used in the great outdoors, many tracking and safety models have rugged designs that are either worn on a wrist or hooked onto a loop or keychain.

## Mark & Return To A Position

Returning to a single spot is made simple thanks to waypoint features found on many tracking and safety GPSes. There are a number of situations where this function can save you time and trouble. For example, if you're going on vacation for a few weeks and your car will be in long-term parking at the airport, you can quickly find your car upon your return

if you logged its exact coordinates in a personal location device.

In unfamiliar territory, a GPS with backtracking capabilities can help prevent you from getting lost. For instance, after a long day of hiking or hunting, you can use this feature to return to your campsite using the exact same path you took when you left.

## Keep Tabs On People & Things

Another type of GPS safety device, often called a GPS locator, can keep constant track of things that matter the most, such as a person, pet, or item. All you need to do to use a GPS locator is attach the device to what you want to track, as well as ensure it has battery

power and is turned on. Then, you can log on to a Web site to monitor where the GPS goes.

Typically, the always-on service will cost you an annual fee, but you (or your loved ones) will enjoy the security of being able to view where the GPS locator is at all times. A GPS device that can automatically track and update a person's location is ideal for a loved one who's on a cross-country road trip, as family members can view

his location at any time rather than check in with a phone call.

### Additional Benefits

In addition to pinpointing locations, some GPS tracking and safety devices allow you to use satellite signals to communicate messages. This is particularly helpful in situations where you don't have a cell phone signal and need to let others know you're OK or send out a call for help. Other models can save

their location histories, so you can see exactly where a person or item went during a given period of time. To ensure the safety of a person, such as children, some GPS locators will send alerts when it's been moved outside of a "safety" zone or when the device has been turned off. In addition to finding this information on the device itself, some GPS manufacturers let you view historical information via a Web site or app.

BY NATHAN LAKE

## SPOT Connect

A smartphone is a great way to communicate your location to others—except when you're in an area without cellular coverage. The SPOT Connect (\$169.99; [www.findmespot.com](http://www.findmespot.com)) can harness satellites for communications, and when paired with a smartphone via Bluetooth, you can check in with friends and family by sending text messages with 41 characters or fewer. If you don't have a smartphone with you, you can use the Check-in/OK mode to send a predefined note (up to 120 characters) along with your GPS coordinates or a link to your exact location in Google Maps to a list of email addresses or cell phone numbers.

In emergency situations, you can select the Connect's SOS mode to send your GPS location to the GEOS International Emergency Response Coordination Center, which will alert the appropriate worldwide agency for rescue. If you have a smartphone

to pair with the Connect, you can accompany the SOS with text messages that include additional information about your situation. After you activate the SOS mode, your message asking for help will be sent out every five minutes until you cancel it.

Another helpful feature of the SPOT Connect is the ability to share your location with others. Simply start a SPOT Shared Page, send the Web link to your friends and family, and activate Track Progress on the Connect. The Shared Page will display reference points you mark and Check-in/OK messages you want to share.

The Connect weighs only 3.7 ounces and is waterproof enough to withstand accidental immersion in water for up to 30 minutes. The required annual subscription for the SPOT Connect is \$99.99 per year.



**SPOT Connect**

\$169.99

[www.findmespot.com](http://www.findmespot.com)



# SCRAPBOOK

## *your summer*

Share your favorite memories with family and friends by turning your pictures into memorable photo books or scrapbooks. The following devices and accessories can help you make the most of your summertime photo collection.



### Eye-Fi 4GB SDHC Memory Card

Not only can you store hundreds of photos on this memory card, but you can also wirelessly transfer them to your computer.

\$49.99 | SKU: 9765392



### Olympus TG-610 14MP Digital Camera

Rugged enough to survive your summer travels, this camera also packs a 5X optical zoom, 3-inch LCD screen, and a 3D picture mode.

\$299.99 | SKU: 2207078



### Epson Premium Glossy Photo Paper

This 100-pack of 4x6-inch smudge- and water-resistant photo paper is perfect for printing your best summer photos to use for scrapbooking and framing.

\$16.99 | SKU: 5563856



### Brother Wireless All-In-One Printer

With a resolution of up to 6,000 x 1,200 dpi, this printer will produce crystal-clear summer snapshots in addition to its fax, scan, and copy functions.

\$249.99 | SKU: 2155163

### 8-inch Insignia Digital Photo Frame

Show off your photos the easy way with this digital photo frame, which features an 800 x 400 resolution and 1GB of internal memory.

\$119.99 | SKU: 9379497



### Lenovo ThinkPad Edge Laptop

Edit, share, and upload your favorite shots with this laptop, which features a 2.67GHz 2nd Generation Intel Core i5 processor, 4GB of RAM, and integrated HD Intel graphics.

\$579.99 | SKU: 2116138





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